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COUNTRY DEVELOPMENT STRATEGY STATEMENT

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COUNTRY DEVELOPMENT STRATEGY STATEMENT 1983-87

MALI

This CDSS presents the case for continued U.S. development assistance to Mali by offering a realistic analysis of the economic, political and social situation on which is based a strategy that will promote the attainment of both U.S. and Malian goals.

The Country Team, while fully cognizant of differing political interests of the two governments, the many obstacles to development in Mali and a shared dissatisfaction with the inadequate progress of development efforts to date, nonetheless believes that continued U.S. assistance offers substantial advantages for both countries.

Mali is a country in the process of political evolution. The Government is seeking a balance between political stability and the increased involvement of Mali's varied political and social elements. Mali must struggle continuously with its marginal environment, heavily dependent on the availability and utilization of its most precious resource--water. Mali's deep-seated and tried social and cultural heritage is being challenged increasingly by the evolution of the political and economic environment.

Mali is a country which is experiencing for the first time pressure on its resources--rapidly increasing human and animal populations trying to live off limited productive areas. Yet, at the same time, Mali has many under-utilized resources. It possesses two major river systems of which only a fraction of their potential for irrigation, power and transport has been tapped. It has agricultural, forest and rangeland which are both misused and under-utilized.

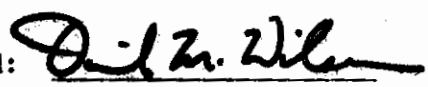
Its population has a well-earned reputation for active and profitable commerce which is currently constrained by the Government's rigid reliance on ineffective parastatal organizations. It possesses valuable minerals from rock phosphate to gold which, if properly exploited for development, could markedly

brighten the economic picture. It has a promising potential for development of solar energy to shift the energy burden away from increasingly costly imports and from environmentally destructive domestic fuels.

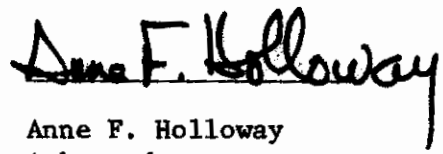
The elements exist for a balance between domestic resources and the demands of an aspiring population, but the formula for effecting this balance has yet to be conclusively determined. These elements must be combined with the catalytic factors of external assistance to provide the sustained patterns of growth.

This CDSS describes the resources and the environment of Mali and analyzes how they affect development. It also examines U.S. and Malian goals and how development assistance can promote the achievement of those goals. It recognizes the primary importance of GRM commitment and actions to the success of current programs and to the justification for continued donor support. It also notes that evaluation of the progress and effectiveness of our mutual programs is a precondition for the continuing expenditure of U.S. assistance resources in Mali.

The CDSS delineates the relative importance of the goals and selects appropriate objectives for an A.I.D. strategy, i.e., increasing food and income of rural producers and providing basic health and family planning services to rural people in selected areas of the country. We consider the recommended strategy conducive to the attainment of both countries' mutual objectives in the five-year planning period.

Approved: 

David M. Wilson
Mission Director

Approved: 

Anne F. Holloway
Ambassador

January 1981

USAID/MALI

COUNTRY DEVELOPMENT STRATEGY STATEMENT (CDSS)
FY 1983-87

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I. ANALYSIS OF THE DEVELOPMENT SITUATION IN MALI

USAID/Mali believes that the most important characteristic of the Malian economy and society is the widespread and pervasive poverty in which all but a small portion of the population exists. Tables in the Annex summarize some general indicators of the economic and social situation which characterize poverty in Mali. The conditions of poverty are not uniform; they vary between the urban and rural settings and among different ethnic groups and regions throughout the country.

To the extent that general characterizations are valid, it is probably correct to say that the overall economy of Mali has not advanced since independence in 1960 and that the great majority of the population is as poor or poorer than before independence--if not in absolute terms, certainly in relation to the world economy. In spite of its poverty, however, Mali has a considerable potential for development.

The economic and social development of Mali must be considered against the background of the political process through which development is carried out. A chronically poor nation still recovering from the disastrous drought of the mid-seventies, Mali has enunciated a strong commitment to development. The complicated formulation of national policy toward meeting that commitment has been difficult and slow. Some progress has been achieved but much more remains to be done if a dynamic process of change is to be started and sustained.

Upon Mali's independence in 1960, a Marxist-oriented government assumed power from France and under a philosophy of "scientific socialism" established the bureaucratic structure and many of the state enterprises which still exist today. By 1968 the country was in a state of economic disarray and the government was deposed by the army and replaced by a military committee. The military set out to apply administrative discipline and economic and financial

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reforms, and later to broaden the popular base for government through establishment of a single political party. The military committee was replaced in 1979 by the executive bureau of the party, although several of the former military committee members were retained in cabinet and party positions. Elections were held in 1979 in which the President, Moussa Traoré, was formally elected, along with an 82-member National Assembly. There was some competition within the single party for nominations to seats in the National Assembly, but that institution has not as yet established itself as an independent power center within the Malian governing structure, nor has it undertaken any notable legislative initiatives.

During the 1979-80 academic year, secondary and superior school students protested administrative policies of the Ministry of Education. The confrontation resulted in a student strike and demands, among others, for the right to form an independent student union outside the single-party organization. The Government negotiated administrative policies but refused to recognize the unauthorized student union. Confrontation led to demonstrations and finally to riots. Student leaders were arrested as part of a government campaign to suppress student dissidence and to restore order. The 1979-80 academic year was largely a total loss. Schools gradually reopened however, during the fall of 1980, except for the national teachers college and national school of administration. Upon reopening the schools, the Government announced severe restrictions on scholarships and establishment of a policy which will require many secondary school students who previously gravitated to Bamako to attend schools in their regions of origin.

The Government and Party operate in unison, administrative decisions and actions being carried out by the Government with final policy decisions in the hands of the Party Central Executive Bureau. The Party continues to seek

a wider political base through organizational efforts at the national, regional and district level and through affiliated organizations of women, labor, and youth. The President, who is also Party chairman, travels widely throughout the country in his dual capacity, as do all the government ministers.

The objective of the Government is to elicit wider popular support. There is, however, continuing potential for disorder. Strong dissatisfaction is expressed with the adverse economic situation, which is seen as resulting from administrative incompetence and corruption--both of which are acknowledged and denounced by the Party and Government. There is also criticism of the Party's unwillingness to share power outside of its established structure. Stability depends upon whether the Party and Government can bring about improved economic performance while broadening the political base of the single-party system.

In a situation of pervasive poverty, it seems important that Malians be able to achieve perceptable economic and social progress through their existing institutions; however, it is increasingly clear that some of these institutions do not effectively serve the country's development objectives. In these cases reforms are necessary for development undertakings to succeed.

This CDSS analysis summarizes the overall economic and social situation, focusing on the conditions of poverty prevailing in a deteriorating macro-economic situation. Next the physical and human resources available are described as a basis for assessing the country's development potential. Then the environmental and institutional constraints to development are described as a basis to assess Mali's need for and ability to utilize external resources. Finally, the process of development is reviewed, focusing on Mali's progress and commitment to economic and social goals and the need for economic reforms, in order to provide a framework for proposed USG development collaboration with the GRM during the 1983-87 period.

A. Economic and Social Conditions

1. Conditions of Poverty

In a nation as ethnically, socially, and environmentally diverse as Mali, it is difficult to provide an all-encompassing yet concise profile of the economy and the poverty. There are, nevertheless, a number of indicators--statistical and other--which can help one to understand what poverty in Mali means.

First among these is the per capita GNP of $120, lowest among all the countries in the Sahel and among the seven poorest nations worldwide--compared with $9,590 for the U.S.[1] The national physical quality of life index (PQLI) is 14, the lowest in the world.[2] Although these statistics make it clear that Mali as a whole is poor, reliable statistics are not available on regional or other bases. Also, they don't indicate qualitative differences in living conditions among various social groups, in ecologically and climatically distinct zones, between urban and rural dwellers, and between agriculturalists and pastoralists.

The cities, it seems, continue to offer greater economic opportunity than the rural areas--this in spite of the intense competition with which one must contend for any kind of earned income. Heavy rural migration to the cities is unabated, as evidenced by the doubling of population between 1968 and 1976 in Mali's two largest cities--increases of 112% and 108% in Bamako and Ségou, respectively.[3] The estimated annual population growth for the capital city of Bamako over the last fifteen years is almost 9% and other major urban areas are growing at about 4.5% annually.[4]

Although the activity of the cities exerts real attraction, it is questionable whether life is better there. To be sure, the upper level civil servants live relatively well; and the merchant class is growing

in numbers who are investing some of their capital in offices, housing, transport, and general commerce in Mali. Apart from these upper level groups, urban living conditions for the majority are less than satisfactory. Employment for middle and low level civil servants is dominated by the bureaucracy and state enterprises, and many heads of households barely earn the amount considered that of the urban poverty threshold for Mali--30,000 FM (about $77) monthly. It is estimated that 40% of Bamako's households have incomes below this threshold level.[5]

Potable water reaches less than one third of urban residents. A shortage of housing touches all income levels but falls most heavily on the poorer people. Sewage systems and garbage disposal facilities in Bamako meet about one-third of the city's needs. Open cesspools, piles of garbage, and uncovered latrines breed the vectors that transmit a host of diseases--including malaria whose high incidence is "the major cause of death of children under five."[6] The burgeoning cities offer diversions not found in the countryside, but one might conclude that city dwellers are not particularly better off.

Urban growth and concomitant poverty, severe as they may be, are only a small part of the national scene. The fact is that 85% of Mali's population is made up of rural families who depend for sustenance on the results of their yearly efforts at growing crops and managing their herds in spite of enormous climatic and environmental obstacles.

As in the cities, some rural families are better off than others for various reasons, such as large land or livestock holdings or the presence of a regularly-salaried civil servant, a merchant, a respected religious figure, a well-known traditional healer, an exceptional craftsman, or other specialists among their numbers. Rural Malians consider that the larger

the family the more secure it will be, because its alliances are more extensive and its potential access to available resources is greater.

In 1974 the GRM development plan defined eleven development zones based on ecological factors. There is no doubt that in those zones where infrastructure and commerce are more developed and the climate less severe, rural families are relatively better off in general.[7] For example, agriculturalists with the best living conditions are those of the Mali Sud zone in the Third Administrative Region in southern Mali. In Mali Sud rural dwellers practice mixed agriculture, raising cash and food crops, and livestock. The use of animal power is more developed here than anywhere else in Mali. There is a fairly abundant and regular rainfall (1000-1500 mm) and a relatively better road network. This area sits astride the main trade routes between the coastal nations (from Sierra Leone to Togo) and Mali and Upper Volta. Moreover, there is an efficient and experienced development agency--the Malian Textile Development Company (C.M.D.T.)--which serves area inhabitants by providing inputs, credit and marketing facilities.[8] These families appear to be better off than those in other parts of Mali, even to the casual observer. These observations and the reasons for them are being studied under the Farming Systems Research Project.[9]

Like agriculturalists in southern Mali, people who live in the area of the Niger interior delta are also relatively well-off. Here there is an abundance of fish, there is normally enough water and dry season pasture for cattle, and substantial crops of rice are grown by farmers in the perimeters developed by the Office du Niger, Opération Riz-Ségou and Opération Riz-Mopti. The security provided by this vast reservoir of water in central Mali results in higher incomes for delta inhabitants with

greater percentages derived from livestock and dairy product sales as well as fishing.[10]

The regions of Mali Sud and the Niger interior delta combine to make up what is sometimes called the triangle of good fortune (triangle de bonheur) which is the principal productive area of the country. It contains about three million people who are relatively well-off compared to other rural Malians.

The most impoverished rural people, both farmers and herder families, are those who live in the Gao zone (the Bourem-Gao-Ansongo Corridor running south along the Niger from its great bend) and the dwellers in the Sahel zone (northern Kayes, Bafoulabé, and Niono, and the entire districts of Yelimané, Nioro, and Nara).

Most families in the Gao zone, nomadic as well as sedentary, raise livestock as their major activity. The mid-decade drought, however, caused substantial herd losses. Some families lost as much as 90% of their cattle during those years and the mainstay of the local diet--dairy products--simply disappeared. People were thus forced to devote greater efforts toward agricultural production in the hope of growing enough food to stay alive. Such efforts in the Gao zone do not bring much reward. Rainfed agriculture (400 mm per year) yields very little. Crops are therefore planted in annual flood areas along the river, but farmable land is severely limited adjacent to the river and newcomers to agriculture must compete for land with sedentary people already there. And even crops along the river fail when, due to less than normal rainfall upstream, the annual rise does not come as expected.

In the Sahel zone (300-500 mm per year) families depend on rainfed crops--mostly millet--and dairy products to sustain them. When the rains

fail or are erratic,harvests are bad and there is not sufficient grass or surface water for livestock. Following the 1979-80 rainy season, many Sahelian families lost up to 70% of their cattle.

Regardless of these relative differences in incomes, living conditions, and vagaries of the weather, one must keep in mind that the vast majority of rural Malians, no matter where they live, are extremely poor. Absolute living conditions are bad. Less than one out of every five Malians has access to modern medicine. Only one out of five Malian children receives any formal primary education, and only one in thirty-five receives any secondary education. Very few have safe drinking water. One out of five Malians dies at infancy and half die before age 5. Existing in poverty that is inconceivable for most Americans is for Malians the rule rather than the exception.

In addressing Malian rural dwellers, USAID/Mali rejects an often accepted notion that these are conservative, tradition-bound people who irrationally overgraze their pastures and refuse to market their cattle, or who deplete the fertility of their soils and will only grow enough to satisfy their subsistence needs. Conversely, the view that development interventions will only upset the equilibrium and tranquility of wise old rural philosophers is also rejected. The Mission believes that the rural farmers and herders are prudent rather than opposed to change and that they, like all rational humans, seek to minimize their risks and maximize their gains by choosing economic actions which seem most appropriate for them. Working with them to determine what those economic actions should be and how they should be undertaken is the mutual challenge facing the GRM and interested external donors.

2. Macro-Economic Situation

Statistics on Mali's economy are scarce and based heavily on estimates. One can make a few tentative general observations on economic performance drawing on some of these estimates, but the unreliability of the basic data should be kept in mind.

During the 1960s, economic growth was less than 3 percent per year, providing a low base for the moderate 4.3 percent growth rate in the 1972-1978 period (see Table 1).

TABLE 1

Gross Domestic Product by Sector
(at 1972 prices)

	1972 Bill. MF	%	1978 Bill. MF	%	Avg. Growth (%) 1972-78
Primary Sector	80.1	42.5	95.0	39.7	2.9
of which:					
crops	(38.5)	(20.4)	(50.7)	(21.2)	(4.6)
livestock	(33.8)	(17.9)	(35.6)	(14.9)	(0.8)
Industry	28.4	15.1	36.7	15.4	4.5
Services	79.9	42.4	107.3	44.9	6.1
of which:					
commerce	(44.7)	(23.7)	(68.4)	(28.6)	(7.4)
government	(22.7)	(12.0)	(27.0)	(11.3)	(2.9)
Gross Domestic Product	188.4		239.0		4.3

Source: GRM, Direction Nationale de la Statistique et de l'Information

Note: Considering that Mali's economic performance is heavily dependent on variable rainfall, the choice of beginning and ending years has important implications for growth rate calculations. 1978 is the last year for which official data is available and 1972 represents the last year of normal rainfall prior to the drought period. Using 1977 or 1979 as the end year would indicate higher growth rates while using 1980 would indicate a lower growth rate. The Mission feels that the 1972-1978 period is reasonably representative of the 1970's as a whole.

Table 1 indicates that between 1972 and 1978 the crops sector grew by an average of 4.6 percent per year. Cotton production has increased most rapidly in response to high world prices and good management by the cotton parastatal CMDT. The other major export crop, groundnuts, has been declining steadily and it is becoming apparent that Mali is losing whatever comparative advantage it may have had in that crop. Another major foreign exchange earner, livestock, was very seriously affected by the drought and is recovering only gradually, as reflected by the less than one percent growth rate shown in Table 1. Foodgrains, the largest agricultural sub-sector, and for Malians the most important, has grown by about 2.5 percent per year since the early 1970s which is slightly less than population growth. This represents some improvement over performance in the 1960s but also reflects that more needs to be done in terms of policy changes and programs if the goal of food self-sufficiency is to be achieved. It should also be noted that most of the increased agricultural production in the 1970s has been due to increases in area rather than increases in yields which indicates a lack of progress in the introduction of productivity increasing, new technologies.

What is not reflected in Table 1 is the heavy dependence of Malian agriculture on rainfall. Despite an overall positive growth rate, there are large fluctuations from year to year. During the last ten years, for example, grain production increased in four years and declined in six. Also not reflected in the table is the impact of agricultural performance on other sectors of the economy. Agro-industries, which account for over 40 percent of industrial production, and the commerce sector are directly affected by changes in agricultural output. Also, government revenues are affected not only directly through reduced export taxes but, more important, indirectly

as reduced incomes and foreign exchange earnings lead to drops in income taxes and import duties. In recent years, i.e., since the post-drought recovery period of 1975-1977, rainfall has been irregular, and this has been reflected in economic performance. In 1978, the last year for which official data are available, primary sector production dropped by 7.6 percent while industry dropped by 2 percent and services increased by 2 percent. The overall economic situation has not changed significantly since then.

With its small population and relatively limited resource base, Mali is heavily dependent on external trade for many basic consumer necessities and goods required for development. As seen in Table 2, this aspect of the economy continues to do poorly. Between 1972 and 1978, exports grew by only 12.5 percent per year, barely keeping pace with inflation. This growth was due mostly to cotton. Mali continues to be dependent on only three products for more than 80 percent of its official export earnings. Given the country's resource base, which is discussed in greater detail below, diversification of the export sector will be extremely slow and difficult.

TABLE 2

External Trade
(in Current Prices)

	1972 Bill. MF	%	1978 Bill. MF	%	Avg. Growth (%) 1972-78
Imports (CIF)	39.7		98.0		16.3
of which:					
cereals	(3.3)	(8.3)	(9.2)	(9.4)	18.6
fuel & lubr.	(4.1)	(10.3)	(17.0)	(17.3)	26.7
Exports (FOB)	21.0		42.5		12.5
of which:					
cotton	(7.7)	(36.7)	(24.5)	(57.6)	21.3
groundnuts	(3.7)	(17.6)	(6.0)	(14.1)	8.3
livestock	(4.7)	(22.4)	(7.0)	(16.5)	6.9
Trade Balance	-18.7		-55.5		
Trade Balance as a % of GDP	- 9.9%		-13.2%		

Source: (1) Banque Centrale du Mali
(2) Statistiques Douanières du Commerce Extérieure

On the import side, the major developments have been continued rapid growth in imports of foods and petroleum products. Overall, imports are increasing by over 16 percent per year. This has resulted in an increase in the trade deficit from 18.7 billion MF in 1972 to 55.5 billion MF. As a percent of GDP, which is one way of separating out the effects of inflation, the deficit has increased from 9.9 percent in 1972 to 13.2 percent in 1978.

The financing of the trade deficit is indicative in many ways of the basic problems facing the Malian economy. Merchandise exports in recent years have amounted to less than half of merchandise imports. The portion of imports not covered by export earnings is essentially all financed through external donor assistance. In any given year, food aid can be expected to finance half of Mali's foodgrain imports. Imports of intermediate and capital goods are mostly for public sector development projects and again are mostly donor financed. Finally, France has provided Mali with a line of credit (the "operations account") to cover the country's foreign exchange shortfalls and thereby keep the Malian franc convertible. Since 1968 France has provided Mali with about $235 million, including accrued interest, through this mechanism. Although the availability of donor financing has enabled Mali to avoid balance of payments crises and other donors are contributing large investments in other forms of aid (see Annex), it is clear that the external sector is not providing the economic impetus which a country like Mali with its rapidly growing population and limited resource base needs for long-term development.

Although foreign exchange is not presently a binding constraint on economic growth in Mali, the lack of domestic resources for investment is critical. Since 1972 consumption has been rising faster than GDP and in

1978 consumption exceed GDP by 1.9 percent. The major causes of low savings have been large current account deficits by the GRM and policies that subsidize basic consumer goods and stimulate consumption over what it would be if true market prices prevailed. A related problem concerns the parastatal sector which, overall, experiences large operating deficits. Present policy is to finance these deficits through the commercial banking system and the Central Bank. Because arrangements with France strictly limit the amount of credit available in the Malian economy after the loans have been made to public enterprise, virtually no funds are available for long-term private sector investments.

The GRM budget is committed almost totally to meeting current operating costs, as summarized in the following table.

TABLE 3

GRM Revenues and Expenditures
(billion MF)

	1975	1976	1977	1978	1979
Revenues	28.8	36.8	48.0	52.3	54.9
Current Expenditures	37.4	44.5	51.5	57.8	70.2
of which: salaries	(25.8)	(29.4)	(31.3)	(35.4)	(38.5)
scholarships	(3.0)	(3.8)	(4.8)	(5.5)	(7.5)
Capital Expenditures	1.6	2.3	3.1	3.4	2.3
Overall Deficit	-10.2	-10.0	-6.4	-8.9	-17.6

GRM revenues as a percent of GDP are relatively low but have proven elastic to economic growth, increasing from 11.1 percent of GDP in 1975 to 13.3 percent in 1979. The GRM's main budgetary problem is controlling expenditures. Because of longstanding commitments related to hiring of college graduates and the provision of generous scholarships, the Government faces continuous shortages for funding other expenditures. The major effects

of these shortages are: 1) government staff have had difficulty performing their functions because of inadequate logistic support, and 2) virtually no government revenues have been available for capital expenditures. The results are evident in steadily deteriorating government services and socio-economic infrastructure.

Accelerating economic growth in Mali in the near future will depend on expanding agricultural production. This will require reforms in government policies relating not only to production incentives in the agriculture sector but also with respect to public finances and domestic resource mobilization. The necessary measures are discussed in Section D.2 below.

B. Resources for Development

1. Physical Resources

Mali's natural physical resources can be divided into land, water and minerals. Weather (rainfall, temperature and sunlight) is an additional important factor which affects utilization of all categories of physical resources and should be also treated as a resource in itself for producing food and energy.

Land. With a territory the size of California and Texas combined straddling a climatic belt that ranges from barren desert to wooded savannah and a population of only 14 per square kilometer of arable land, Mali is land-rich. Range, farmland and forests constitute 483,000 square kilometers or 39% of Mali's territory. The balance is made up of a few urban areas (less than 0.2%) and desert 754,000 square kilometers or 60.8). The Land Use Inventory project [11] is producing land classification maps and data which will enable administrators, technicians and designers to plan for optimal utilization of the land according to soil types and potential water availability by utilizing available satellite remote-sensing data combined

with ground-truthing field surveys. The data becoming available confirm that large amounts of land are underutilized; moreover, they will provide the basis for formulating optimum land allocation for grazing, farming and forestry in a manner which will maintain or enhance the ecology. Rather than soil and groundwater conditions, however, the optimum productive uses of the land tend to be influenced mostly by historic rainfall patterns and man-made transport and irrigation infrastructure which control availability of production inputs and markets.

Soil fertility is another important factor in optimal use of the land. Agronomic research in USAID project areas supports the well-known principle that plowing, crop rotation, and natural fertilizer have important effects on soil fertility. Land classification combined with ecologically adopted crop rotation and fertilizer usage will play important roles in shaping future research and farming systems. Resulting information will be compiled, correllated and analyzed to determine the technical components needed in future USAID-financed crops and livestock projects. These analyses will help determine the relative levels and types of investments to be made in the semi-arid zone of Opération Mils-Mopti, the river basin of Opération Haute Vallée, and the Sahelian livestock ranges. The future allocation of forest land, especially for reserved areas, should also be made on the basis of this land survey information.

Water. Rivers and lakes, groundwater and surface water are key development resources which are subject to wide annual variations due to rainfall within Mali and to the south. The headwaters of both the Niger and Senegal rivers are located in the tropical forests of Guinea. Running to the northwest and northeast, they traverse the opposite sides of Mali. Both rivers are subject to wide variations in flood level, which

has important implications for transport, irrigation and hydroelectric power generation. The Niger provides an essential transportation link to the east and north of Bamako and is essential to the livelihoods in fishing, farming and herding. Traditional recession and residual moisture cultivation is practiced throughout the vast inland delta of the Niger. Irrigation is practiced on diesel pump perimeters ranging from a few hectares up to the vast Office du Niger complex originally established and constructed by the French prior to Malian independence and capable of irrigating up to 57,000 hectares of desert land. Irrigation potential along the Senegal River is comparatively less than that of the Niger, but both are underutilized due to poor management and inadequate market incentives to producers, among other factors. The transportation potentials of both river systems are not fully realized due to low water navigation restrictions, lack of channel maintenance, and poor management of equipment and facilities. These river systems also are important potential sources of hydroelectric power. There is large external donor interest in Niger and Senegal river basin development, particularly in completion of the Selingué dam, improvement of the existing Office du Niger facilities, and construction of the proposed Manantali dam on the upstream portion of the Senegal river.

Maintenance and operation of the Selingué dam, a multi-donor financed project on a tributary of the Niger south of Bamako, will provide important experience and lessons for future investments in river basin development in Mali. The first of four turbines came on line in August 1980 and now provides 7 of Bamako's 14 MWH demand. The project will more than provide for Bamako's electricity needs when completed in 1983. Construction and maintenance of additional power transmission lines to outlying rural areas, canal structures to utilize the irrigation potential, and social

services for displaced population of the flood basin are planned and financed. Continuous attainment of expected output will depend heavily on overcoming management and recurrent costs financing constraints discussed later in this section.

More important than the irrigation, power and transportation functions of these river systems, from the perspective of most villages within their basin areas, is the groundwater effect. The reliable water table (though often more than 50 meters down in some areas of the Haute Vallée) is an important source of year-round water. Aquifers reaching well up into northern grazing areas are traceable to the Niger. Proper management of ground-water is vital for environmental preservation of the Sahelian zone and for environmental health in the savannah.

Minerals. Mali possesses known, exploitable reserves of gold and phosphates and possible oil and uranium deposits, plus quantities of bauxite, iron and other minerals of marginal commercial potential due to difficulties of access. Ancient Mali was renowned for its gold production, which has received renewed interest with the rise in the world market. With Soviet Union assistance, the Kalana mine in southern Mali has been reactivated and commercial production is expected to start in 1981. Although the deposit is believed to contain relatively high grade ore (30 grams of gold per MT ore), production quantities are not yet known. Additional alluvial deposits of an estimated 5 MT of gold ore of potential commercial grade (0.3 grams per cubic meter) have been located recently in the Bale valley in southwest Mali. GRM officials are exploring possible commercial arrangements including American-made dredges.

Phosphate production has started recently in the Tilemsi Valley in eastern Mali about 180 kilometers north of Gao. Annual production of

50,000 MT is estimated for 1981-85. Reserves are estimated at 20 million MT. Phosphates produced at this time will be used entirely for agricultural production within Mali, mainly in the central and eastern regions. Natural, unprocessed phosphate is a slow acting fertilizer, but it has a prolonged positive effect on soil fertility.

Recent interest has been shown in possible oil production. A French company has permits for exploration in areas of eastern, central and northern Mali and will soon drill two test holes in the Arouane basin in the north. It is expected that Mobil Oil will also begin explorations.

A joint Japanese-Malian uranium exploration team is working in unspecified areas north and east of Gao (eastern Mali) but little information is available concerning their discoveries, if any.

Weather strongly affects the utility of the land and the availability of water. Rainfall, temperature and sunlight are critical factors. After five years good rainfall and average to good post-drought crops, the 1979/80 and 1980/81 crop year rainfall has been only slightly below average in quantity but very irregular in distribution and too short in duration. This has resulted in overall cereal production of about 80% of average.

A tropical nation with a short rainy season, Mali receives a lot of sunlight, which is converted into crops and woody matter that perhaps 90-95% of villagers use to meet their energy needs. However, this naturally renewable resource base is being exploited and abused faster than it can regenerate.

Sunlight can also be converted to mechanical or electrical energy by thermal or photovoltaic techniques. Thus it can be used for a variety of tasks such as pumping, cooking, lighting, grinding and refrigeration. The technology, the economics, the entrepreneurship, and the planning and coordinating structure often do not yet exist to allow for large scale use

of solar energy conversion techniques.

In certain areas of northern Mali, wind seems to have some potential as an energy source for pumping or generating electricity. Data is not available to make a reliable estimate of the magnitude of this potential. Windpower has been tried in Mali with very disappointing results, although major problems appear to have been institutional.

The Ecology. Being a large country in territory, Mali has a varied ecology. The threat of desertification of the Sahel zone is tempered by the river systems and aquifers, but population pressures and development activities could have adverse effects. A small population practicing traditional grazing and field rotation practices was generally in balance with the ecology, but the destructive effects of modernization and increasing population will require close attention to environmental safeguards against deforestation, erosion and pollution. Current government policies and donor-financed projects are generally compatible with the ecology, but they will require increasing attention in the future.

2. Human Resources

People are Mali's main resource. Malians are strong and well-adapted to their harsh environment; but the country's ability to develop its physical resource depends on the capacity of its human beings, specifically in terms of health and nutrition, level of basic education and skill acquisition.

Health. Mali's health picture is grim. Not more than 15% of the population has access to modern health services. In the last 20 years, the quality of health services provided to even this 15% has not significantly improved; in fact, there are signs that health services may have deteriorated in the urban centers where most of the health resources are concentrated.

Despite the inadequacy of mortality and morbidity statistics, estimates of health status can be made and they speak for themselves:

Crude death rate - 24/1,000

Under 5 child mortality rate - almost 50%

Life expectancy - about 40 years

There are several major constraints to the improvement of health care in Mali. Although approximately 7% of the national budget is devoted to health services (down from over 10% in 1965), the health budget for the last five years has remained at about $2 per person per year. Limited health financial resources means drugs, medical equipment and vehicles are chronically lacking. Health facilities are also lacking in quantity and quality. Mali has two national and six regional hospitals, 46 health centers, and 400 dispensaries. While these facilities constitute the skeleton of an infrastructure, linkages between the different levels are weak because of bad roads, lack of transport, and poor communication. The constraints of limited financial and human resources and weak infrastructure are compounded by inadequate planning and management at all levels.

The low literacy rates, submarginal incomes, inadequate access to safe water, and limited food production mentioned elsewhere in this paper all play major roles in determining low health status. In this context, the health environment is hostile.

Despite this grim picture, there is a positive side to health in Mali. The Ministry of Health has a sound strategy: primary health care with emphasis on rural coverage. There is a medical school which turns out about 35 physicians a year. The two nursing schools turn out approximately 150 midwives, nurses, and other health professionals each year. (The A.I.D. centrally-funded INTRAH project is assisting in improving the teaching methodology and the curriculum in the nursing schools.) Priorities for

further training are in the public health areas, particularly in planning and management. Unfortunately, the Ministry of Health's budget allocations and systems of personnel incentives continue to be biased in favor of urban health centers.

External assistance donors play important roles in the health sector. France, USSR and China provide medical teams in urban centers. Germany, France and WHO are carrying out national and regional research projects in leprosy, onchocerciasis and schistosomiasis. UNFPA and private agencies carry out mother/child health projects in rural areas. All donors provide medications, but control and standardization are lacking. USAID is financing a pilot rural health project to devise a system for delivering affordable basic health services to villagers as a basis for a national rural health service. The World Bank is planning a closely related national rural health project. The Ministry of Health needs to consolidate its experience from various donor programs to gain maximum benefit from them.

Population. While Mali's estimated crude death rate, and particularly its infant mortality rate, rank among the highest in the world, a 2.7 percent rate of population increase does not appear excessive to the Malian Government. The amount of arable land per capita in Mali ranks near the top among African nations.

It is distinctly possible that the population growth rate will increase over the short run. While planned efforts to improve the general health of the people should rather rapidly result in lower mortality, fertility in Mali--as in many other LDCs--can be expected to prove much more resistant to efforts at reduction as Mali enters into its demographic transition. It is true that development, including the availability of improved health services, may eventually lower fertility because of the resulting increased

potential for child survival, but powerful traditional and economic attitudes and factors may still oppose trends toward lower fertility.

Available demographic indicators suggest that Mali's land resources may be threatened by its rapid population growth and that the country will face a significant population problem sooner than its government supposes. The Mission feels that the GRM has considerable distance to travel to arrive at a proper understanding of development-fertility linkages so that government planners start taking full account of demographic considerations. This appears to be in some measure due to the limited quantity and poor quality of demographic and other data currently available. The Sahel Institute's Demographic Data project is developing these data.[12] The awareness of the linkages and means to deal with them in the planning process should follow.

In its concern for improving the quality of life of its people, Mali has been somewhat ahead of its Francophone sister states in that for the past seven years some limited family planning services in urban areas have been available as part of the provision of basic health care. Family planning is acceptable to the GRM when viewed as a basic human need integrated with other health services, specifically with maternal and child health care.

There is an unmet demand for family planning services, and the use of modern contraceptives and family planning education to promote the health of mothers and children is accepted. USAID is currently providing a variety of family planning assistance under the following A.I.D. centrally funded programs: J. H. PIEGO, the Futures Group RAPID Project, the IFRP, the INTRAH Project, and through the CDC family planning division. (See 80 Bamako 7450 for details.)

Employment. Of the 2,300,000 Malians actively employed in 1977, 93 percent were engaged in agricultural activities, including farming, fishing, and the raising of livestock. Underemployment in the rural area is widespread, however, and is estimated at 100 days per year per laborer. About one-half of the population engaged principally in agricultural activities are women whose secondary activities include handicrafts. The remaining 7 percent of the active population is employed in the urban salaried sector--namely, in the public service (1.6%) and private and semi-private enterprises (1.6%)--and in the informal sector--handicrafts and small businesses (3.6%).

Basic Education for Farmers. The great majority of the rural population (90-95%) is illiterate and has received no basic education in reading, writing and arithmetic. These skill deficiencies impede the introduction and implementation of new techniques to increase production and improve family health, income and well-being. Since 1967, the GRM has encouraged and supported the development of village functional literacy programs in the six national languages to enable villagers to read basic material in health and agriculture. Beginning in 1972 these programs have been integrated with selected rural development operations. USAID is currently financing literacy programs in two integrated rural development operations projects--Opération Mils and Opération Haute Vallée. At the present time, an estimated 1,500 functional literacy centers are open with some 35,000 village participants. However, villager demand and need for functional literacy appears to be vastly greater.

Generally, villages have responded positively to the introduction of literacy programs, especially where courses are given in local languages and include numeracy and literacy skills needed for administration of

cooperatives and for marketing agricultural produce. It is estimated that the cost per participant for functional literacy training is about 45 percent of the cost of providing elementary schooling for the same period. However, only 5 percent of the participants in functional literacy programs are women, primarily because men hesitate to let their wives participate or because women themselves have little time for such activities. Another shortcoming of the literacy programs has been the lack of sufficient reading materials to reinforce learning and specialized radio programming materials directed to the village population. The Malian government is making efforts to solve these effectiveness and efficiency problems with assistance from the United Nations and the World Bank.

Formal Education. Traditionally, the formal school system has served as a means of preparation for and access to high-status positions in the public service or jobs in the salaried sector of private and semi-private enterprises. Graduates from secondary and post-secondary institutions must be absorbed annually into the Malian civil service. However, the number of graduates at the upper levels have become too numerous for the needs of the GRM or other employers. This imbalance has strained GRM budgets and created the potential for high-level unemployment among the educated minority.

The overexpansion of general secondary education and post-secondary education has been at the expense of the expansion of elementary education and specialized secondary education. Indeed, Mali currently has an over-supply of highly educated generalists compared to available jobs and a deficiency of low and mid-level technicians, especially in agriculture, animal husbandry, veterinarian science, health care, and education.

USAID and the World Bank are financing improved and expanded facilities for agricultural technician training, but the system remains unbalanced and ineffective in meeting national needs.

Mali has far to go to achieve its objectives of mass literacy and educational reform to meet development needs. Only 21 percent of the 7-12 age group is enrolled in school (1978-79). The rate for girls' enrollment is 14 percent. In addition to serving only a minority of the population, the school system continues to experience high dropout and repeater rates, contributing to an overall inefficiency.

Educational Finance and Development Priorities. The GRM continues to devote a large proportion of its budget for education, increasing its expenditures from 30 to 33 percent between 1978 and 1979. About 96 percent of the educational expenditures have been for scholarships and personnel, leaving some 3.6 percent for materials and other expenses. Elementary schooling expenditures have declined from 52 percent of the budget in 1976 to 39 percent in 1979. Some other 1979 education expenditures as a percentage of the education budget were as follows:

General and post-secondary education	33.0%
Teacher training	5.0%
Technical secondary education	1.0%
Technical and professional training	5.0%
Functional literacy	0.8%

These allocations suggest a serious imbalance between educational expenditures and development needs for trained manpower and a literate population. However, it should be noted that, although data is not currently available, there has been a noticeable trend toward more financing of school construction and recurrent costs by local population. This may be the formula for affordable general education.

Based on a recent study of the education sector, the GRM has designated three priority areas for education development: 1) to expand basic education and training programs for adults and children, adapting elementary schooling for the latter group to the environment through ruralization of the curriculum and the use of national languages for instruction at the primary level, 2) to develop low and mid-level professional and technical training to provide needed manpower for development, and 3) to improve the administration of educational activities. These are the areas external donors should be examining for future programs in education.

C. Constraints on Development

Mali faces serious constraints that must be considered in determining the types and amounts of aid which it can absorb and effectively utilize. These constraints derive from the natural conditions and the human and institutional situations described above. From a development point of view, it is useful to classify these constraints into those deriving from the environment (geography, rainfall, transportation, and communications), those concerning financial resources (government budget and public enterprise deficits), and those of an institutional nature (management and marketing systems, trained manpower, public enterprises).

1. Environmental Constraints

Landlocked and located on the southern border of the Sahara desert, Mali must overcome tremendous environmental problems to achieve growth and development. The most basic of these is the climate. Much of Mali is desert with virtually no agricultural potential. Another large portion of the country, the Sahel zone proper, is subject to low and variable rainfall resulting in low crop production potential and frequent crop failure

due to local droughts. Only 20 percent of Mali in the Sudanian and Guinean (woodland) zones and the irrigable areas along Mali's rivers have significant agricultural potential.

A second critical constraint is Mali's landlocked location. The long distances to the port cities of Dakar and Abidjan mean lower net foreign exchange earnings from exports and higher delivered costs for imports. For some goods (e.g., foodgrains), it costs more to transport them from the ports to their final destination than it does to make the initial purchase and transport them to the West African coast. This situation has several implications for Mali's development strategy, since Mali is extremely dependent on a well-developed and low-cost regional transport and communications system.

Mali's small internal markets and limited resource base means that the economy will always be heavily dependent on external trade; therefore, the country needs to minimize the economic disadvantages that stem from its landlocked and remote location. On the import side, Mali should consider pursuing import substitution consistent with its resource base and the size of its internal markets. Prime candidates are foodgrains and light consumer goods industries. With respect to exports, Mali seeks to maximize the processing of its products (i.e., export groundnut oil instead of groundnuts). This not only increases the value added produced in-country but also reduces the costs of transport per unit value of exports.

Related to the external trade situation, it should be noted that countries like Mali have been very adversely affected by the high world inflation rates that have resulted from petroleum price increases and economic policies in developed countries. Mali cannot do without imports, and it has no control over the prices it obtains for its exports which

are primarily agricultural and relatively income inelastic. Worsening terms of trade have contributed an important added burden for Mali on top of its many other development problems.

Another implication of Mali's landlocked position is that it must develop in the context of the West African regional economy. This means first that development investments should be concentrated in areas where Mali has comparative advantages, e.g., coarse grains and livestock, and second, that continuous high priority attention should be given to improving regional economic linkages. It is not in Mali's or any other Sahelian country's economic interests for individual West African countries to pursue autarkic economic policies. Of particular concern to Mali is the need to consider development of transport and communications infrastructure in a regional context. Specifically, Mali needs good low-cost transport links to the West African coast.

A final environmental constraint affecting Mali's development prospects relates to energy resources. At this point, all fossil fuels are imported, an expense that takes up to 40% of the country's export earnings. Since it is unlikely that alternative fuels will be found in the near future, special efforts must be made to address conservation measures. The urban and agriculture sectors can use hydropower to relieve some of this costly fuel dependence and more attention can be given to solar energy potential in rural areas.

In addition, Mali suffers from the firewood energy crisis. This crisis is pressing in the rural areas where fossil fuel technologies have not made many inroads. Firewood is becoming scarce and prices are rising rapidly. In Bamako, where people have less access to other cheap fuels such as agricultural waste, wood for cooking can take up to 35% of a family's income.

As population pressures increase and wood is cut farther and farther from population centers, environmental degradation and the threat to arable land through wind and water erosion is inevitable. It is clear that major attempts at reforestation with the participation of villagers are required immediately if major fuelwood shortages and environmental destruction are to be avoided.

Mali, at present, has no institutional structure that can focus on its energy problems. There exists little of the planning, analytical and management capability which is needed to get the most out of limited resources.

2. Financial Constraints

A major development constraint in Mali since the 1960s has been the lack of local resources for development expenditures. The problem stems directly from government policies aimed at achieving political, social and economic objectives that are not necessarily consistent with one another. The financial results of these policies show up primarily in the rapidly growing current expenditures of the GRM, especially salaries, and large deficits in the public enterprise sector.

Table 4 summarizes the financial situation in the public sector. As discussed briefly in the macro-economic overview section the GRM has been experiencing steadily increasing budgetary deficits due primarily to its inability to control expenditures on salaries and scholarships. As a result, the percentage of current expenditures spent on materials and equipment is the lowest of any country in the Sahel except Upper Volta. This has serious adverse effects on the social-economic infrastructure of the country and on the efficiency of government personnel. Also, the shortage of funds means that the GRM is unable to cover the recurrent costs of donor-financed development projects or undertake development investments of its own.

TABLE 4

Public Sector Finances
(billion MF)

Government Budget	1975	1976	1977	1978	Est. 1979
Revenues	28.8	36.8	48.0	52.3	54.9
Current Expenditures	37.4	44.5	51.5	57.8	70.2
Capital Expenditures	1.6	2.3	3.1	3.4	2.3
Overall Deficit (-)	-10.2	-10.0	-6.6	-8.9	-17.6
Special Funds[1]					
Revenues	3.4	4.4	6.4	8.8	
Expenditures	2.7	3.2	6.0	5.3	
Surpluses	.7	1.2	.4	3.5	
Financial Balances of Selected Public Enterprises (surplus/deficits)[2]					
SOMIEX	.8	2.2	1.4	-6.9	
OPAM	-1.9	-4.0	-4.2	-2.1	
SCAER	-	.2	-0.3	- .8	

[1]The Road Fund and the Loan Amortization Fund (CAA).

[2]SOMIEX is the Malian import/export monopoly; OPAM is the grain marketing monopoly; SCAER was the major agricultural credit institution until its credit functions were dissolved in 1980. In addition to these three organizations, the parastatal sector is made up primarily of nine large public enterprises involved in industry, transport and communications which together accounted for sales of about 117 billion MF in 1978. Detailed financial information on each of these enterprises is not available.

Sources: Ministry of Finance, Fonds Routier, CAA, and balance sheets of the state enterprises.

Because of its monetary arrangements with France, the GRM is strictly limited in its ability to incur debt. The Government has been successful in obtaining budget support from external donors to cover a major part of its deficit, but the remainder has had to be financed from other parts of the Malian economy thereby taking funds away from development activities.

One source of funds has been the postal checking system. Deposits that are received into the postal system are redeposited with the Treasury. In recent years Treasury has been spending these funds with the result that the postal system does not have sufficient liquid assets to meet its obligations. This means in effect that the GRM finances part of its deficit through the postal system.

Another source of deficit financing is the so-called Special Funds (Road Fund and Loan Amortization Fund) which receive earmarked revenues collected initially by the Treasury where they are partly spent before they are passed on to the Special Funds. Since the Treasury does not have sufficient funds to pay the full amounts due to the Special Funds, they make payment with postal checks, which cannot be cashed because the postal system has insufficient liquid assets. As a result, the Special Funds are unable to accomplish their intended purposes.

An overall lack of liquidity has a strong negative impact on the GRM ability to meet recurrent costs and to service its external loans. The repayments of large loans from the USSR and China have been rescheduled.

The parastatal sector constitutes an even greater drain on domestic resources since all of its operating deficits are financed by the Central Bank through the commercial banking system. As seen in Table 4, deficits of the three largest commercial public enterprises are increasing rapidly. In addition, the enterprises not shown in the table also experience

continuous deficits. A major cause of poor financial performance throughout the public enterprise sector is bad management, overstaffing, lack of skilled manpower, and inadequate markets; but for the three enterprises shown in the table, the main problem is GRM price and subsidy policies. OPAM (Office des Produits Agricoles Maliens) as the largest source of deficits provides a good example of how public enterprise financing works. OPAM's main role is to provide subsidized foodgrains to urban consumers. The subsidies are financed by the Price Stabilization Fund (OSRP), whose role is to stabilize producer prices of export crops. However, OSRP funds are insufficient to cover the subsidies and OPAM must resort to the commercial banks to cover the losses.

The mechanism used by public enterprises is to borrow from the state-owned Malian Development Bank (BDM) which is obliged to provide financing to public enterprises. The loans are then rediscounted with the Central Bank. Since Mali's access to the "operations account" is accompanied by limitations on the amount of credit that can be provided to the economy in any given year, loans to finance the losses of inefficient public enterprises are a direct drain on the amount of credit available to the private sector. In fact, the banking system makes virtually no long-term loans to the private sector. Most of the private investment occurring in Mali is direct investment in the housing and commercial sectors.

The steadily worsening domestic resource constraint in Mali is well recognized by donors and the GRM and has recently begun to receive policy level attention. The specific changes in policy that are being considered are discussed in Section D.2 (economic reforms).

3. Institutional Constraints

There is a strong need in Mali for management systems and trained manpower to operate them. Although the Malian education system produces a

surplus of secondary and university graduates in proportion to the public sector's capability to employ them, most are not well prepared to assume responsibilities for carrying out or managing development activities. USAID project experience has shown that Malian graduates are quick to learn such skills, if given the opportunity. When a project can be carried out in isolation under a competent project director and staff, it can be expected to achieve the outputs for which it was designed and financed. When project director and staff lack experience, they learn quickly on the job if they have access to competent and linguistically qualified technical advisors. The task on the GRM side is to assign and maintain competent project directors and staff while giving them the necessary authority to administer their projects. The corresponding donor role is to provide the essential technical assistance and financial inputs on a timely basis over a sufficient period to achieve results.

Effective management of development projects will contribute little to long-term development if it is not accompanied by broader GRM institutional reform. Reforms needed include practically all of the parastatal monopolies, particularly the state cereals marketing board (OPAM) and the export-import company (SOMIEX). Although the parastatals employ tens of thousands of workers, provide basic goods and services and are the basis of the modernizing sector, they are a drain on the national budget and through heavy borrowing from the Central Bank have absorbed virtually all available commercial credit. Restructuring of these sectors is not a matter of mere government fiat. They will require extensive administrative and economic changes, each of which has its uncomfortable results. The specific changes that are being considered in the parastatal sector including the restructuring of the cereals marketing system are discussed in Section D.2.

Behind all of these institutional problems lies a need to restructure the education system previously described in Section B.2 on human resources.

D. Process of Development

1. The Planning Process

Development planning was introduced by the colonial government in the 1940s with a series of 10-year and subsequent 4-year "indicative plans." The first post-independence plan was approved in 1961 and ran for five years. Investment targets were largely unmet and annual budgets did not adhere to plan criteria. Economic decision-making was generally independent of the plan. Institutional failure characterized the first decade of Malian independence, and economic planning was irrelevant or ineffective in influencing the direction of development.[13]

The military committee government established an economic and financial reform program running from 1970 through mid 1973. The Government considered results of this reform plan satisfactory and used them as the basis for its 1974-1978 development plan. This plan was a serious effort at organizing investments in cereals production, water, livestock, minerals development, and transportation infrastructure, but little prioritization was evident. The great drought intervened in the mid 1970s and much of the plan remains unimplemented. Notably lacking was a plan for increasing revenues or organizing institutional reforms to build on the results claimed under the preceding reform program.[14]

The investment program under this plan remains in place for the interim pending the publication of the draft 1981-85 plan and its submission to the National Assembly scheduled for April 1981. Combined efforts by the Party and the Government have been made to collect information on needs and aspirations of the rural area through regional and district planning

commissions with representatives of local government officials and elected party members. These proposals are being consolidated, reviewed and prioritized by national level committees for rural economy, mining/energy, transport/communications, social services, and finance. The stated focus of the plan will be on achieving food self-sufficiency with secondary attention to providing broad-based health services. It is not clear yet whether or how this new plan will set and enforce investment priorities or chart the course for economic reform.

2. Economic Reforms

The Government has stated frequently its recognition of the need for economic reforms that address the financial and institutional constraints cited above. A number of tentative steps have been taken in recent months toward implementation of several reforms. In each case, it must be recalled that longstanding institutional problems lay at the base of each of these macro-economic situations. Above all, one cannot ignore that external factors play dominant roles in Mali's economy--such as the drought, increasing petroleum prices, world inflation and fluctuations in trade terms on Mali's principal exports of peanuts, cotton and beef.

From USAID's point of view, which is shared by most other donors, structural economic reforms should be taken in three areas. In terms of their importance to the goal of food self-sufficiency, these are, in order of priority and probable chronological precedence: a) restructuring of the cereals marketing system, b) reform of the state enterprises, and c) reform of public finances. Each of these involves a series of specific actions that can only be taken over a period of two to five years. All are interdependent; therefore, while proceeding on independent timetables, the effects of actions in one area of reform must be taken into account in the others.

Cereals Marketing. The cereals marketing system has long been recognized as a major macro-economic constraint to achieving national food self-sufficiency in Mali. The basic flaws in the system are official producer and consumer prices that are much lower than market prices and the inability of OPAM to perform its monopoly role in cereal marketing. Although the producer price for millet and sorghum has increased from 18 MF/kg in 1971 to 70 MF/kg in 1980, it is still well below the level of official producer prices in neighboring countries. The differences between the Malian official prices and those in neighboring countries mean that farmers will not sell to OPAM unless they are forced. This is done through a quota system which is not only difficult to enforce but also difficult to administer given sharp year-to-year fluctuations in production and marketable surpluses. OPAM's problems are complicated by the fact that even at prevailing low producer prices, the official consumer price does not provide sufficient margin to cover its costs. The end result is that OPAM is in continuous financial difficulty and is unable to supply more than a small percentage of the urban market. The urban population that was intended to benefit from OPAM is therefore forced to purchase most of the grain on the parallel market at a price that is considerably higher than it would be in the absence of OPAM.

Although Mali's cereal marketing problems have been long recognized by donors and have been well analyzed and documented, the GRM has persisted in its view that OPAM is needed to counteract the harmful practices of private traders. Recently, however, the Government has emphatically stated the need for reform. One specific set of measures currently being discussed by donors and the GRM is a fairly rapid increase in producer prices to the level of neighboring countries and a more gradual increase in official consumer prices in order to minimize hardships for those urban consumers that are now purchasing subsidized grains. Since this would have

the short-term effect of increasing OPAM's deficits, donors are considering the possibility of providing assistance to OPAM to make up the difference. (See Bamako 0363, January 1981, and related cables for more details on anticipated changes in OPAM and private sector grain marketing and proposals for U.S. food assistance.)

Also being studied is a possible redefinition of OPAM's role. One specific proposal is for OPAM responsibilities to be limited to 1) maintaining security stocks, 2) supplying chronically deficit areas, and 3) stabilizing prices. The price stabilization role means that Mali would have an official floor price for producers and an official ceiling price for consumers, both based on long-term market trends and implemented through OPAM purchases and sales. Although price stabilization programs have always been difficult to implement, such a role for OPAM would be much more manageable than its present one. The most important benefit, however, would be that grain producers would have easier access to the open market at prices that reflect actual supply and demand conditions.

Public Enterprises. As noted in the section on financial constraints, Mali's public enterprise system is a major drain on domestic resources for investment. One reason for this is structural. Many of the public enterprises are the result of misguided import substitution attempts by the GRM and can never become economically viable. Others are carry-overs from the socialist policies of the 1960s and should be returned to the private sector where they would either be operated more efficiently or closed if not viable. The other reason for the substantial operating losses is their pervasive inefficiency due primarily to poor management and overstaffing. Both the structural and the efficiency problems have been recognized by the GRM which has officially expressed the intention to undertake the

necessary measures to redress the situation. These include first a reduction in the public enterprise sector by returning some industries to the private sector and categorizing others as appropriate for joint public/private ownership and second, steps to improve management, reduce overstaffing, and increase financial accountability of the individual enterprises. Significant changes along these lines are known to be politically and bureaucratically difficult, and it is unclear at this time how far the GRM will be able or willing to go in implementing them.

Quite aside from the resource drain resulting from inefficiencies, the activities of certain public enterprises have a major impact on the well-being of different segments of the Malian population. In addition to OPAM whose role is to subsidize cereal consumption in urban areas, the enterprise having the greatest impact on Malians is SOMIEX, the export-import monopoly. On the export side the GRM has been very effective in increasing budget revenues by maximizing the difference between the producer prices of export crops and world prices (e.g., in 1977 the payments by SOMIEX amounted to 23 percent of total budget revenue and in 1979, when world cotton prices were depressed, SOMIEX tax payments still amounted to 10 percent of GRM revenues). On the import side, SOMIEX, like OPAM, is used to subsidize consumption, primarily in urban areas. The internal activities of OPAM and export activities of SOMIEX result in reduced agricultural production because of artificially low producer prices. These lower producer prices combined with urban subsidies amount to a net transfer of resources from productive rural activities to nonproductive urban consumption.

Financial Reforms. As noted in the section on financial constraints, the GRM's inability to reduce expenditures for salaries has not only resulted in increased deficits but has greatly reduced the funds available for

materials and equipment, recurrent costs of development projects, and capital expenditures. In effect, most of the GRM expenditures are in the nature of current consumption and are making very little contribution to development. Even those government services that meet basic social needs, e.g., public health and primary education, are not being provided effectively because government personnel are lacking logistic support.

In the short run the most urgent changes relate to expenditures. The GRM needs to find a way to stabilize the number of civil servants. Also, its policy towards the financing of higher education needs to be changed. These steps should, of course, be accompanied by continuous efforts to improve management and efficiency throughout the government service. On the revenue side, there are a number of steps that can be taken to improve tax administration including collection of rental payments due the Government; improvement of tax records; readjustment of fee schedules; enforcement of vehicle registration fees; installation of auditors within state enterprises; restructuring the Customs Service to enforce tighter standards on both agents and merchants. Decisions on the 1981 budget scheduled in April should reveal which steps the GRM is prepared to take against which its continued commitment to these reforms can be measured.

As noted in the HIID study on recurrent costs in Sahelian countries,[15] there are limits to how much revenues can increase as a percent of GDP. Studies comparing Mali's tax efforts with those of other developing countries indicate that there is little scope for increase in tax rates, although continuous efforts are needed to improve tax collections. The only long-term solution to the lack of resources for government services and for the recurrent costs of development projects is more rapid economic growth which in the final analysis can be achieved only through sound economic policies and cost effective development projects.

3. External Donor Roles

External donors can assist or discourage Malian achievement of economic reforms through the nature of their assistance and the manner in which it is provided. A matrix in the Annex summarizes the complex assortment of aid programs provided in 1979 by some 40 external donors totaling about $250 million--well in excess of the national budget.

Project assistance, which accounts for the largest value of donor support, shapes investment in Mali. Since Malian budget resources go virtually entirely toward salaries and maintenance, almost all capital investments derive from donors. Therefore, regardless of where the GRM may place its investment priorities, final investment decisions rest with the donors--at least in the negative sense that investments not supported by donors are not implemented. Therefore, it is most important that priorities articulated by donors match GRM priorities.

Nonproject assistance is more difficult to evaluate. It can take the form of outright budgetary support, indirect or direct import subsidies, food aid, pharmaceutical aid, or financial diversions from inadequately monitored projects. Whether nonproject assistance is programmed and negotiated as such or becomes de facto nonproject through diversion, it can inhibit the economic and institutional reforms discussed above. Therefore, it must frequently be conditioned, For example, concerted donor action is required to provide sufficient food aid in 1981 to meet predicted shortfalls and mitigate potential human suffering and nutritional damage--but it must be taken under negotiated and monitored conditions which will not undermine the scheduled price increases to producers in 1981 and projected increases in subsequent years. Joint donor discussions have resulted in a unified proposal for food assistance and cereals market restructuring.

On broader issues, a series of IBRD/IMF missions in late 1980 have discussed details of economic reforms needed as conditions for balance of payments and structural financing.

Coordination among donors is obviously needed. This occurs on a project level among administrators and technical advisors in collaboration with responsible Malian project personnel. USAID is urging the Ministry of Planning to take a stronger role in coordinating donor assistance in conjunction with its management of the Plan. A.I.D. participation in the Club du Sahel and other international donor forums is a necessary corollary means of donor/recipient coordination; but in USAID/Mali's view, the Sahelian governments themselves should take more responsibility--not just through the Permanent Interstate Committee for Drought Control in the Sahel (CILSS) but at the national interagency and donor country representative levels as well.

II. STRATEGY FOR U.S. ASSISTANCE IN MALI

A. U.S. Interests

The United States has ongoing interests in the development of Mali as an independent, economically and politically stable country influential in West African affairs.

To assist in this development we support: the satisfaction of the basic human needs of the Malian population; the fostering of economic interdependence, regionally and worldwide; and the maintenance of a balanced, nonaligned political posture which will contribute to regional stability.

1. Political Independence and Regional Stability

Mali is a self-declared nonaligned nation. It accepts important amounts of military and economic assistance from Communist nations and votes consistently along ideological lines in international fora regarding Arab-Israeli and southern Africa issues. At the same time, the culture and economy are closely linked with those of Western Europe and its regional neighbors of both capitalistic and socialistic bent. Mali maintains simultaneously open and active relations with Western, Communist and Arab nations and organizations. It is an active participant in the Organization for African Unity, in the two West African economic unions, CEAO and ECOWAS, in the Niger River Commission and the Senegal River Valley Development Organization (OMVS) and the Interstate Committee for Drought Control in the Sahel (CILSS).

It is in the U.S. interest to promote these multifaceted relations of the GRM in a manner which allows more and more of its energies and resources to be channeled to accelerating national development, which we feel is the critical element in both short and long-term stability and viability.

Mali's important historical influence on the region can be enhanced by its demonstration of progress in its internal affairs.

2. Economic Interdependence

Mali was the historical grain-basket of the Sahel. Its role in the economic unions and river basin commissions is important for sustained and integrated development. In the near term Mali must look to achieving self-sufficiency in food and improving the incomes and well-being of its rural population; but to continue development on a sustained basis will require the production of reliable food exports. Follow-on development of small industries for processing agricultural commodities and exploitation of minerals could make Mali a formidable member of the West African regional economy. U.S. association with Mali's sustained development will strengthen our mutual economic relations for the long-run while encouraging regional West African economic integration.

3. Basic Human Needs

Regardless of other considerations, the major reason for U.S. involvement in Mali remains our humanitarian concern for the poor and underprivileged peoples of the world. This general concern is highlighted for Mali by the expressed and legislated interest of the U.S. Congress in providing development assistance to the Sahel.

Mali must look primarily to itself to take the necessary measures for its own development, but long-term and consistent donor support in key sectors will be important for the success of Mali's own efforts.

B. U.S. Assistance Objectives

1. The Basic Objective

Mali's stated basic national objective is attainment of self-sustained

economic development providing increased income and well-being for its population. The USAID program should continue to support this basic objective.

2. Strategy Objectives

Long-term development in Mali must be based on agriculture. Improved agricultural productivity is necessary to increase food availability on a sustained basis. Since about 85% of the Malian population is rural and depends on agriculture for its livelihood, increasing incomes to food producers is the basic means of addressing the poverty described in the Analysis in Part I. At the same time, the need for rural families to provide for both the nutrition and the health of their children with the income available to them appears to be fundamental to progress. Therefore, a secondary objective to provide rural health and family planning services has been selected.

USAID proposes a two-sector approach, focusing primarily on food production and income in selected areas and secondarily on selectively assisting the development of a national rural health system in close coordination with other donors. PL 480 assistance would help meet projected near-term deficits and provide incentives for fundamental reforms in the cereals marketing system. Supporting activities are proposed in small infrastructures, functional literacy, village reforestation, energy, and women's training programs directly tied to the selected areas of the primary sector. In support of both the primary and secondary sectors, overseas participant training and in-country training will be programmed to address the key managerial needs which constrain reaching the planned goals of the primary and secondary sector strategies. USAID activities in each sector will be designed to complement those of other donors.

Accomplishing any form of sustained development requires that Mali deal with the serious and complex constraints on its development. Among those discussed in Part I, the lack of infrastructure, lack of qualified manpower, inefficient institutions in the government and public enterprise sector and serious financial resource constraints throughout the economy need to be dealt with by the GRM and donors if foreign assistance is to result in sustained development. The USAID strategy is conditional on the GRM willingness and ability to take effective measures in addressing these constraints. The foremost specific action under the proposed USAID strategy is the reform of the cereals marketing system in conjunction with U.S. PL 480 assistance.

If this priority macro-economic reform is substantially accomplished during the course of 1981 and 1982, an important step will have been taken towards agricultural production projects becoming economically viable, thus generating revenues to cover their own recurrent operating costs and eventually earning revenues for the total economy. Follow-on reforms in the state enterprise sector, public finances and education will be needed to sustain progress under all donor-assisted projects; but they will probably follow a timetable behind that of cereals marketing reform. Continuing financing of each USAID project under the two sector strategies will be conditional on agreement to a design requiring economic viability and Malian financing of recurrent operating costs by the time of the project completion. Such project conditions will, in effect, require dealing with the various areas of reform--at least in some measure--on each project.

(a) Food and Income. The objective of the primary sector strategy is to increase the quantity of food available to the entire population by

increasing production and incomes of farmers and herders in selected areas of the country. Integrated crops and livestock activities will be carried out in specific areas supported by national and regional research and training projects. A coordinated donor program of supplementary food assistance is proposed to meet current shortages after poor crop years in 1979 and 1980, enabling the GRM to maintain affordable quantities of cereals while assuring incentive market prices to the producer.

Observations and preliminary data indicate that while national production levels have fallen off during the past two years, productivity in areas of USAID projects has held steady or increased. Significant numbers of producers in these areas are responding with good results to methods and inputs provided through the USAID projects. Yet it does not appear that the projects will be able to sustain themselves in the near future without marked improvement in project management.

The USAID proposed integrated crops and livestock approach will be carried out through a series of area development projects aimed at production of a primary crop or a combination of crops best suited for the area climate and soil conditions and a national livestock sector project which focuses on selected areas and providing animal health services for the national herd. The area crops production projects will be carried out by rural development "operations" which are administrative entities of the Ministry of Agriculture having authority to administer a broad range of farmer services in their respective areas. The livestock sector will be managed by the Ministry of Livestock, Water and Forests which is responsible for planning all land use and mangement of rangeland and administering animal health and production services. Since cattle are moved annually between the Sahel and Savannah to take advantage of the seasonal grazing and health condition changes in the respective zones, national sector management

is necessary; but whenever possible the livestock authorities coordinate and delegate administration of livestock services to the rural development operations for programs such as farmer livestock feeding activities. USAID is emphasizing improved management and coordination methods in both livestock and crops and will propose consideration of an integrated crops sector project depending on experience with the livestock sector project.

The methods of operation in both crops and livestock are similar--a technical package based on research and land use analysis delivered to farmers and herders through extension services accompanied by inputs and credit and market services. These are supported by research and manpower training projects addressed to either crops or livestock production, or both. A more complete discussion of the method of operation is attached in the annex to this CDSS.

The retention or selection of areas for new or continued USAID crops and livestock production projects will be based on the following criteria: 1) the area must have demonstrated economic viability, though it need not be located within one of the better-off zones of the country; 2) transportation and communications support must be possible with reasonable USAID resources and 3) conditions for eventual Malian financing of recurrent project operating costs must exist.

First consideration will be given to continuation of USAID financing of projects now underway, based on presently scheduled of project periods and evaluation findings. Based on the above criteria, determinations will be made either to phase out USAID assistance or to continue with an expansion of area and beneficiaries. A means of eventual Malian financing of recurrent costs will be agreed upon and designed into the follow-up phase of any project selected to be continued.

USAID does not plan to entertain project proposals for new area development until evaluations are completed and decisions reached on the projects now underway. These evaluations are scheduled through FY 1981 and 82. However, administrative support and coordination will be provided to the extent possible in connection with USAID/Dakar-administered Regional contributions to the Senegal River Basin Commission (OMVS) for studies and development of the upstream basin area in the First Region of Mali.

USAID believes that carefully restricted PL 480 food assistance can play an important role in the food and income sector strategy. The poor rains and reduced harvests in 1979 and 1980 have resulted in a need for increased food imports in the near term. Based on a country-wide survey, a multi-donor evaluation team has recommended that donors provide 93,000 MT of cereals to Mali during 1981. At the same time USAID has joined other donor representatives in proposing a formula for immediately increasing official prices paid for grains to farmers to a level near export market prices while gradually raising prices paid by consumers over a five-year period, with the price difference financed by counterpart funds generated from sale of donated food. USAID proposes that limited PL 480 assistance be made available to support such a price restructuring program in conjunction with other food assistance donors. Such assistance would be conditioned on sound GRM provisions for fiscal accountability of food commodity sales under a restructured cereals marketing system. (See Bamako 0141, January 1981, and related communications for details of current proposal.)

Projects in crops and livestock research and manpower development have made important progress in the past two years and should be continued at

limited but gradually increasing levels. USAID proposes to continue to study and discuss with GRM authorities the possibilities of an expanded national system of integrated agricultural extension and research in collaboration with other aid donors in Mali.

(b) Health and Family Planning. The objective of the secondary sector is to improve primary health care and family planning services by strengthening national health institutions and expanding the rural health system in the Fifth (Mopti) Region.

The mid-course evaluation of the Rural Health Project (0208) found that basic health services could be provided to villagers in the district of Koro in the Fifth Region at costs affordable to the villagers if the national and regional supporting systems were maintained at efficient levels. At the same time logistics problems in the extremely remote district of Yelimané in the northwest First Region were such that a viable rural health system could not yet be formulated for that area.

To build on the Koro experience, USAID proposes to design a second phase rural health project in close collaboration with other donors for a national rural system operated by the Ministry of Health. Other donors are expected to be the World Bank, WHO, West Germany, France and possibly China and other smaller bilateral and multilateral nongovernmental donor organizations.

More comprehensive assistance would be provided to extend the delivery of rural health services to some of the people of the Fifth Region based on the Koro experience. The project will be designed during FY 1981 and 82 to start in FY 83 upon expiration of the present Rural Health project. The new project would provide limited and specific assistance at the national level designed to improve planning, logistics, administration,

and manpower development to deliver rural health services. Elements to be considered in this second phase project should be:

1) Support to health training institutions (curriculum development, materials facilities renovation, in-country and participant training, and selected operating expenses of limited duration);

2) Support to the logistics system (communications equipment, drugs, equipment and transportation for central and regional operations, and in-country management training);

3) Support to family planning (training, technical assistance, maternity and child health facility construction, equipment and supplies);

4) Support to health planning by the Ministry of Health (technical assistance, equipment and supplies).

USAID would finance at the national level those elements in which the U.S. has special experience and/relative competence to other donors. At the same time, USAID would focus particular attention on developing the Fifth Region rural health delivery system. Financing of recurrent costs would be limited to support systems which can be maintained and operated by the GRM upon completion of the project period without relying on foreign assistance. It is recognized that this will be the principal limiting constraint on development of a national rural health system.

(c) Supporting Activities. To achieve the primary and secondary sector objectives, key supporting sector activities need to be included on a highly selective basis depending on resource availability.

Infrastructure. Necessary supporting facilities such as small buildings, market roads and small irrigation works should be constructed within area development projects. These would be implemented by the rural development operation or other GRM entity responsible for the area development. They

would be carefully planned with local population participation before, during and after construction to ensure effective use and maintenance.

Literacy and adult education. Functional literacy programs should be expanded under area development projects with emphasis on inclusion of women and consideration given to strengthening rural basic education by increasing post-literacy materials and through use of rural radio programs. Training programs should be designed to encourage women to participate more in economic activities in rural development.

Training and institutional development. Priority should be given to training agricultural and livestock agents in direct support of the primary sector. Nonformal training in employment generating skills (e.g., blacksmiths, farm mechanics, carpenters, masons, etc.) should be continued and expanded under area projects. On the national level, it is proposed to emphasize improvement of project management (through in-country training in financial management, procurement, etc.) and selected advance training related to institutional management (e.g., economics, public administration, education and health planning).

Reforestation. A reforestation element should be considered in each area project. This should be based on experience being gained under the Village Reforestation accelerated impact project (AIP: 625-0937.9) started in FY 1980. Nurseries and extension activities assisted by Peace Corps Volunteers and private voluntary agencies should be expanded to encourage and assist villagers to plant and maintain woodlots.

Energy. A two-fold strategy should be undertaken. First, USAID should selectively assist the GRM in developing and exploiting indigenous renewable energy sources in areas where the U.S. has predominant technological capability. Prototype development may be financed for use in crops and

livestock project areas, and private enterprise should be encouraged to produce and distribute proven devices. Second, USAID should support the GRM in improving its analysis, planning and management of the energy sector through specific technical assistance and training programs where the U.S. has predominant capability.

3. Beneficiaries

(a) Direct Beneficiaries

--Areas. Potential direct beneficiaries of the proposed USAID strategy would be those living in the zones selected for concentration in the primary sector (food and income) and the entire rural population of the Fifth Region under the secondary sector (health and family planning). If areas of concentration were to remain the same as under the current program, potential benefits would be as follows:

Increased income to farmers	
Operation Mils area	65,000 families
Haute Vallée area	21,000 families
Action Blé, Diré area	2,400 families
Action Riz-Sorgho, Gao area	10,000 families
Increased income to livestock herders	275,000 families
Better health care and family planning services for the Fifth Region rural population	1.1 million people

--Participation. The GRM is emphasizing participation of rural populations in the preparation of its national development plan. The USAID program proposed under this strategy will be planned and carried out through the regional and district planning systems established and being strengthened by the GRM. USAID will require that two criteria be continuously applied throughout the joint planning process. These are:

-- that measures be taken to ensure that participation in projects is open to the majority of the population in each area in which a project is undertaken, and that income creating activities be designed in a manner that measureable income benefits can derive to all participants;

-- that deliberate measures be taken in each activity to assure participation of women as a fully representative part of the participants in the project.

(b) Indirect Beneficiaries. Consumers and national institutions will benefit as Mali approaches self-sufficiency in food and develops its capacity to sustain its own long-term development.

(c) Environment. The program should enhance the ecology in general through improved cultivation, firewood conservation techniques and local reforestation in areas of concentration under the primary sector. The livestock sector project should continue to contribute to regeneration of the rangeland through herd management and encouragement of local populations to maintain firebreaks and control water points. Under current funding and staffing restrictions, USAID does not propose to introduce a program directed specifically at the environment; but we are seeking methods to draw on U.S. expertise in the environment to assist Malians in use of the results of the Land Use Inventory Project and other available planning resources to better manage their environment.

C. Program Management

1. Project Implementation

In making the transition from a program development emphasis to a project implementation and evaluation emphasis, USAID Mali has encountered significant problems. Evaluations carried out in FY 1980 have led to termination of the Rural Works project (0204) and redesign and focus of other ongoing projects. Three small regionally-funded projects (AIPs)

were completed and terminated and the proposed pilot project for development of the First Region was deleted.

In November-December 1980, the Mission, with the assistance of an outside consultant*, carried out an assessment of the technical assistance provided under our projects. The principal findings of the assessment were that project implementation delays significantly reduced the effectiveness of USAID projects and that the primary causes of these delays were inadequate USAID/GRM collaboration in project design and implementation, inadequate pre-project and in-progress planning (see discussion in section on Project Design and Evaluation below), and inexperienced and inadequately trained GRM and USAID staffs.

Considering the results of the assessment, as well as the overall management environment within which projects will be implemented, USAID has concluded that, while limited improvements in GRM and USAID project management capabilities can be achieved in the CDSS planning period, sustained effective management will require long-term improvement in GRM management systems, institutional structures and staff capabilities. This will require the investment of considerable resources.

In response, the USAID immediate strategy will be to focus on adapting our program to meet existing management constraints while at the same time acting to reduce or remove those constraints. Our approach will be to minimize the management burden by limiting the number of new project starts, clustering projects sectorally and geographically, increasing management-related technical assistance and training, and developing improved Malian and USAID operational and financial management capacity.

Concurrently, USAID believes AID/W should help improve project management by simplifying AID contract and grant procedures and by having summaries

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* James L. Roush, "Assessment of Project Funded Technical Assistance", Final Report, December 1980.

of principles and procedures translated into the language of host countries. Another high priority should be project management courses designed for Francophone West Africa.

In the long-term, the major USAID emphasis should be first on expanded management training within Malian training institutions and later, in collaboration with other donors, on assisting the GRM to undertake institutional reforms aimed at improving its management of development programs and projects.

2. Project Design and Evaluation (see Bamako 8160, December 1980)

Evaluations are scheduled in FY 1981 for six ongoing projects. Closer collaboration will be sought with the GRM in project design and evaluation activities. This will include the establishment of joint project design and evaluation teams and the development of clearer procedures for design and evaluation. Special attention will be focused on issues related to project management in the design and evaluation process.

Major consideration will be given to:

-- mutual agreement on project goals, purposes, inputs, outputs and methods of implementation as well as respective roles and relationships of GRM, USAID and contract personnel in project implementation;

-- capacity of USAID and GRM project personnel to plan, organize and manage project implementation;

-- accessibility of project to USAID/GRM program management staff;

-- participation of the beneficiaries in project decision-making;

-- demonstration of potential benefits to beneficiaries, including environmental effects.

3. Regional Projects

AID/Washington centrally funded projects and Africa and Sahel regionally-funded projects have important roles in this proposed development strategy,

but in the past insufficient allowance has been made in staffing and budgeting to properly manage such programs.

Such projects are particularly useful in providing specialized technical assistance and for training programs in management, agricultural and health/family planning subjects at in-country and regional locations. When reviewing A.I.D. financial and project summaries for Mali (e.g., PAIS), projects which are financed with regional funds but are bilateral in nature do not show up (e.g., five Accelerated Impact Projects, the Sahel and African Manpower Development projects, Farming Systems Research, Village Reforestation). Nevertheless, as important developmental activities, these and others such as Sahel Institute and CILSS projects must be carefully integrated into the program strategy. Furthermore, the elements concerning Mali must be carefully planned for and managed or monitored by USAID/Mali. Sahel regional projects are monitored and coordinated through the Sahel Mission Directors Conferences and the Sahel Development Planning Team. The closer control and monitoring of AID/W central projects should be better accomplished through the proposed "quasi-contractual written definition of the Mission's responsibility" called for by AID/W. (See State 342328 of December 1980 and Lusaka 0166 of January 1981.) Such written agreements will be reviewed with the GRM and should facilitate programming and integration of centrally funded activities into strategy objectives.

4. Donor Coordination.

As stated at the conclusion of Part I, donor coordination is basically the responsibility of the GRM Ministry of Plan. The Ministry is heavily committed to preparing its new Economic and Social Development Plan and has limited staff available for the time-consuming coordination activities. An important step in facilitating coordination is preparation of detailed

information on donor programs which is made widely available to Government and donor agencies. In addition to this CDSS (which the Mission has discussed with the Ministry of Plan and will translate and provide to the GRM), USAID/Mali prepares an annual description of the USAID program in English and French which is provided to interested GRM agencies and to other donor representatives. This sharing of information and opinions helps to generate dialogue and mutual understanding among donors which is essential for achieving consensus on objectives, roles and methods of collaboration.

Beyond the sharing of information and viewpoints, it is necessary for donors to coordinate their activities wherever they may impinge on one another. This is accomplished on an informal basis when information is shared openly. It would be helpful if the GRM would strengthen this coordination at the planning level through the Ministry of Plan and at the sector and operational level through coordinating groups of donor representatives who could meet regularly in each ministry where mutual interests were involved.

III. ASSISTANCE PLANNING LEVELS

The proposed strategy calls more for a long-term commitment of U.S. assistance to Mali's development than it does for rising levels of resources. However, A.I.D. must be able to make adequate resources available on a sustained basis if the U.S. is to play a significant role in Mali's development.

Under current conditions, it is doubtful that levels projected in the Assigned Assistance Planning Level (AAPL) of $60 million by FY 1987 or that the U.S. staff to administer them would be appropriate for the USAID proposed strategy. Likewise, it would not be feasible to expect the GRM to effectively administer its side of development projects at that level in the timeframe of this strategy--if projects were limited to the objectives proposed in the primary and secondary sector strategies.

There are, nevertheless, alternatives to the proposed strategy which would involve larger U.S. assistance contributions without commensurate increases in staffing or demands on GRM administrative resources. These would be most likely in joint financing of major infrastructure projects such as construction of the Kayes-Nioro Road in northwest Mali (for which A.I.D. underwrote a feasibility study and will finance follow-on detailed engineering design, conditional on other donors' financing of construction), the Manantali Dam as part of the OMVS development plan, and phosphates exploitation facilities in northeastern Mali. Each of these proposed projects indicates economic feasibility and would support increased food production while providing second stage benefits to producers. Successful reforms during the next two to three years in cereals marketing, state enterprises and the educational system might lay the basis for expanded assistance in integrated agricultural education, extension and research and other activities in the primary sector in 1985 and onward.

The following table indicates potential uses for U.S. development assistance assuming reasonably prompt action by the Malian government on key economic and

institutional reforms and availability of essential GRM and USAID project management personnel.

Planning Levels
($ Millions)

	FY 83	FY 84	FY 85	FY 86	FY 87
Primary Sector (Food & Income)	22	25	33	41	45
Crops	10	10	12	17	18
Livestock	6	7	8	8	8
Education/Research/Extension	3	4	8	10	12
Other supporting activities	3	4	5	6	7
Secondary Sector (Health & Family Planning)	5	5	5	8	8
Supporting Sector (Institutions)	3	4	4	6	7
Leadership training	1	1	1	1	-
Management training	1	2	2	4	6
Small projects (AIPs/OPGs)	1	1	1	1	1
Major Infrastructure (Multi-donor cofinancing)	10	11	8	-	-
TOTALS	40	45	50	55	60

In addition to A.I.D. financing, a PL 480 program to enable the GRM to undertake sound cereals market reforms should be considered based on current and projected shortages. An annual program of 10,000 MT of rice and/or sorghum through 1985 probably would be sufficient as a U.S. contribution in support of the proposed reforms. However, continued inadequate rainfall in future years would create emergency needs and trigger requests for additional PL 480 commodities. Food aid should not be provided except against the quid pro quo of reform and with adequate accounting systems included.

Staff to carry out the primary and secondary strategies and key supporting activities should be maintained at about 30 U.S. direct hire in 1983 and gradually decrease to 25 by 1987 (to include IDIs and PASA) with a doubling in foreign national direct hire from the present 45 to 75 in FY 1983 and 90 by FY 1987.

It should be noted that the above programs are bilateral only. Regionally and centrally funded projects will continue to play important roles in U.S. assistance to Mali. Regardless of how the bilateral program advances, some of these regional projects probably should continue, since they offer opportunities for key technical assistance inputs and they frequently address regional objectives in which countries other than Mali have interests. These projects would continue to make a demand on a USAID/Mali staff for their effective administration.

The Mission believes that improvements discussed under "Project Implementation" in preceding Part II of this CDSS will enable the Mission to increase the effectiveness of U.S. assistance and administer a larger program with a smaller number of U.S. direct hire personnel. This would be made possible principally by project portfolio consolidation and by hiring and training Malian employees to do more of the work now being done by U.S. direct hires. Increased flexibility to employ U.S. and TCN resident contractors who are not dependent upon Embassy JAO support services would also relieve U.S. direct hires of many tasks.

FOOTNOTES

1/ World Bank, World Development Report 1980. Washington, D.C.: August 1980. Other countries among the seven poorest with equal or lower GNP per capita are Kampuchea, Bangladesh, Laos, Bhutan, Ethiopia and Nepal.

2/ Overseas Development Council, Agenda 1979 Annex A-4. Guinea-Bissau and Niger also score 14. For a discussion of quality of life indicators in the Sahel, see Part IA in Regional Development Strategy Statement for Sahel Development Program December 1979, AID/Washington.

3/ Official results, 1976 Census, Central Census Bureau, Bamako. More recent unofficial figures from the National Office of Urbanism and Housing confirm ongoing migrations.

4/ International Development Association report, "Mali Urban Development Project", June 1979.

5/ Ibid. pgs 5-7. USAID/Mali considers this estimate to be much too conservative. Currently, 40,000 MF ($90 monthly) should be the threshold and many more households fall below this.

6/ Ibid, p.7.

7/ Basic source: Situation de l'Economie Rurale Malienne en 1972. Bamako: Commission Nationale de Planification de l'Economie Rurale. Its figures are summarized in the Mali Agricultural Sector Assessment. East Lansing, Michigan: University of Michigan Center for Research on Economic Development, 1978. Percentages giving an idea of the distribution of income by each of the eleven rural regions are from 1972 and are simply indicative of differences. We have adopted them according to our current knowledge of each region which comes from various sources. With 1972 figures adjusted for 1980, rural per capita cash income might be estimated $30.

8/ Rapport Annel, 1979-80: Associations Villageoises dans la Zone Cotonnière du Mali, Bamako, C.M.D.T., 1980.

9/ Farming Systems Research Project (625-0929.09A). Proag signed 9/29/78.

10/ Figures cited in Volume 3, Etude de Reconnaissance de la Vallée dans la Région de Gao. Paris: SATEC, 1975.

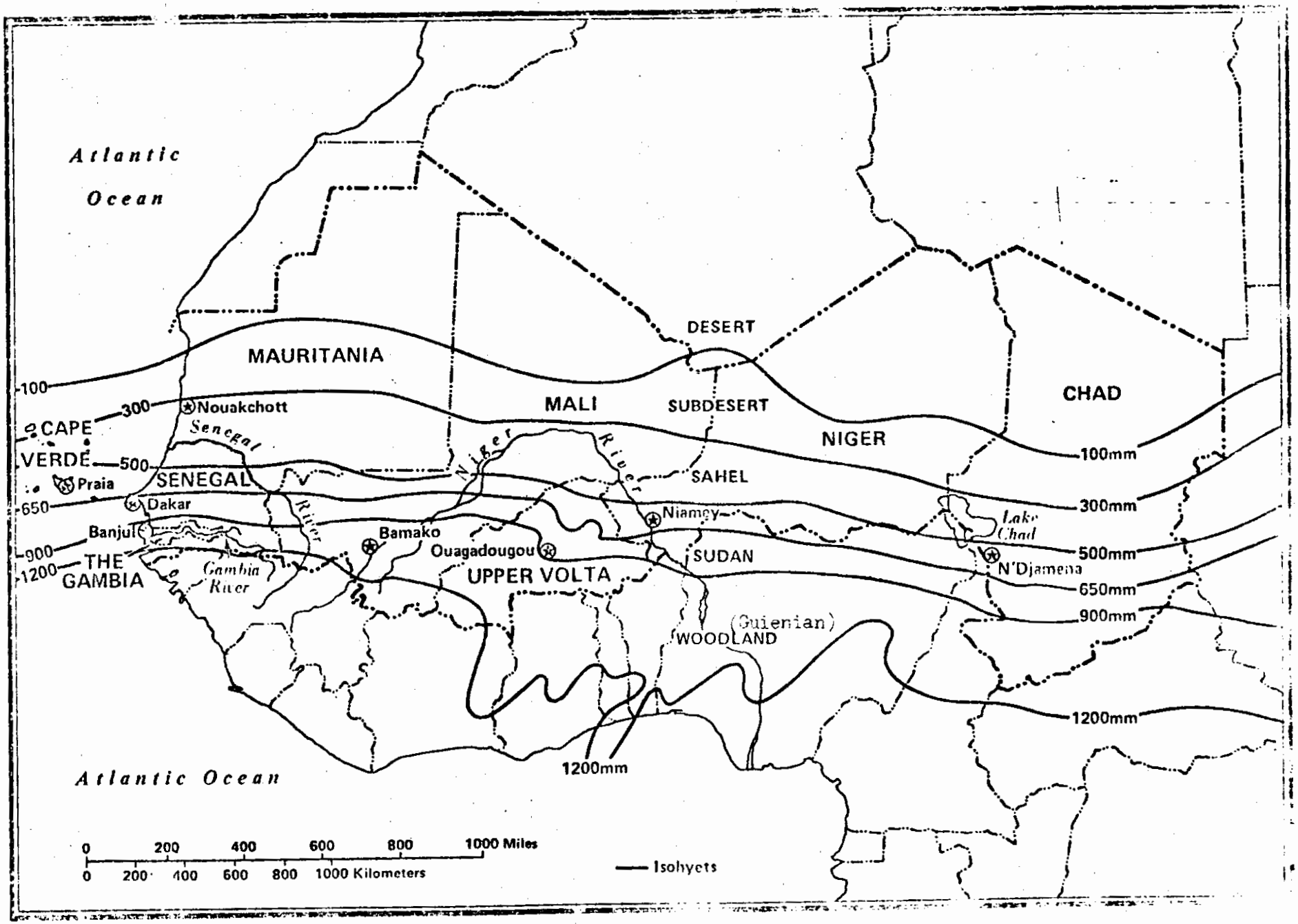
11/ Land Resources Utilization Inventory Project (688-0205). Project Agreement signed in FY 1978. Life of project funding estimated at $4.4 million. Scheduled completion in November 1981. First phase evaluation carried out in Nov/Dec. 1980. Evaluation report scheduled February 1981.

12/ Demographic Data Collection and Analysis (625-0927). Project Agreement signed August 1980.

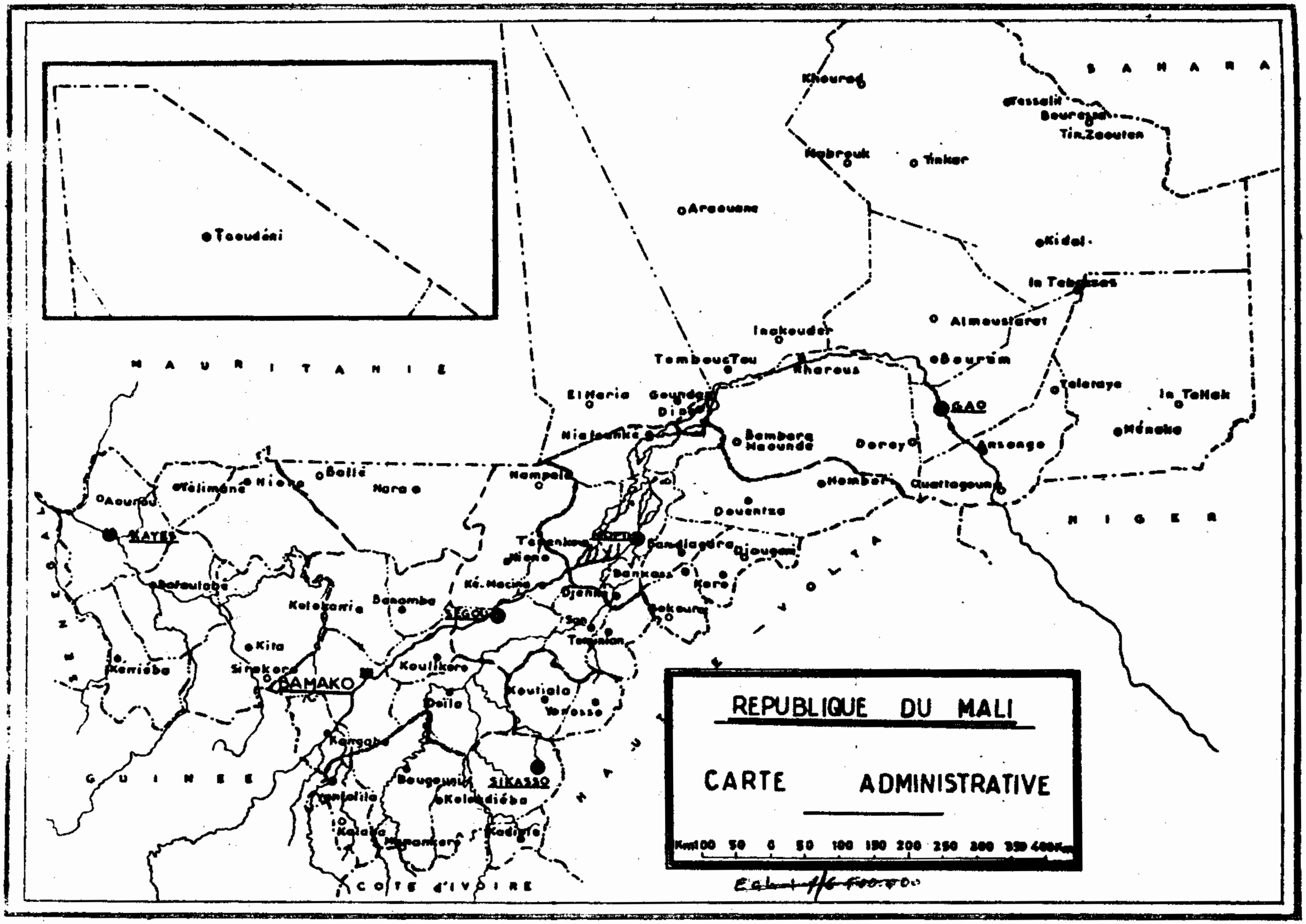
13/ Jones, William I., Planning and Economic Policy: Socialist Mali and her Neighbors, 1976. Describes the planning process and institutional structures in the 1960s and analyzes the institutional reasons for economic deterioration during the period.

14/ Republique du Mali, Plan Quinquennal de Développement Economique et Social 1974-1978, Août 1974.

15/ CILSS, Working Group on Recurrent Cost, Recurrent Costs of Development Programs in the Countries of the Sahel: Analysis and Recommendations, August 1980. Technical reports were also prepared on six donor-financed development projects in Mali.



The Sahelian Countries


REPUBLIQUE DU MALI
CARTE ADMINISTRATIVE
Km100 50 0 50 100 150 200 250 300 350 400Km
SAHARA
MAURITANIE
NIGER
GUINEE
COTE d'IVOIRE
Taoudéni
Araouane
Tinkar
Kidal
Almoustarat
Bourem
GAO
Ansongo
Menaka
Tombouctou
Goundam
Diré
Niafounké
Nampala
Douentza
Bandiagara
Bankass
Koro
Djenné
Tominian
SEGOU
Ké. Macina
Koulikoro
Kolokani
Banamba
Nara
Nioro
Kita
BAMAKO
KAYES
Bafoulabé
Kéniéba
Koutiala
Yorosso
Dioïla
Kangaba
Bougouni
SIKASSO
Kolondiéba
Kadiolo
Yanfolila

ANNEX

TABLE 1

ESTIMATED ECONOMIC AND SOCIAL INDICATORS IN MALI

	1960	1970	1980
Area (square kilometers)	1,240,000	1,240,000	1,240,000
National Population	4,100,000	5,100,000	6,600,000
People per square kilometer	3.3	4.1	5.3
Population growth rate	2.1%	2.4%	2.7%
People per sq. km. of arable land	8.5	10.6	13.7
Gross Domestic Product (U.S. $ millions - 1964 base)	390	525	790
National per Capita GDP (U.S. $ - 1964 base)	98	100	120 (1978)
Literacy Rate	3%	10% (1974)	10%
School Enrollment (% children - aged 7-12)	7%	20% (1974)	21%
(% girls - aged 7-12)	unknown	unknown	14%
Life Expectancy (years)	37	38	40
Crude Death Rate (per 1000)	27	27	24
Infant Mortality (to age 5)	60%	50%	45%
People per Doctor	95,000	50,000	25,000
Rural Population Served by Modern Health Care System	5%	10%	15%
Access to Piped Water (urban population)	unknown	unknown	29%
Access to Safe Water (rural population)	unknown	unknown	25%
Per Capita Calories (% of requirements, varies by region, seasonally and annually)	90%	75% (1974)	90% (1977)
Malnutrition in Children under 10	unknown	unknown	6-10%

Sources: AID/DS/DIU/ESDS ALL DATA report on Mali of November 1980, updated and supplemented by USAID/Mali.

TABLE 2

PRODUCTION TRENDS

INDICATOR	1960	1967	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980 (est.)
Grain Production (000 MT)	n/a	971	985	1002	807	753	1165	1235	1140	1054	1274	947	745
Cattle Exports (000 head)	n/a	115	185	n/a	210	190	186	88	106	136	115	225	n/a
Gross Domestic Product (bill MF, 1972 prices)	130	164	175	181	188	182	178	202	230	245	239	n/a	n/a

Sources:

Grain production and Gross Domestic Product: Official GRM statistics. Grain production is from harvests during calendar year indicated. It will be noted that there is a one year lag between changes in GDP and changes in foodgrain production. This is due to the GRM methodology for calculating GDP.

Cattle Exports: Mission estimates based on customs data adjusted to take account of unofficial trade. The basis for the adjustment is the difference between Malian data on cattle exports to Ivory Coast and Ivory Coast data on cattle imports from Mali. In most years, Ivory Coast statistics showed cattle trade to be at least triple the level indicated by the Malian statistics.

Note: Approximate current rate of exchange is 450 MF = $ 1.00 U.S.

EXTERNAL ASSISTANCE DONORS TO MALI

OECD Countries

France
Germany, Fed. Rep.
Canada
Japan
U.S.
Belgium
Netherlands
Switzerland
Italy
Norway
United Kingdom

Communist Countries

USSR
China
Germany, Demo. Rep.
Rumania
Czechoslovakia
Hungary
Poland
Bulgaria

Multilateral Assistance

ADF/ADB - Afr. Devl. Fund/Afr. Devl. Bank
EDF- European Development Fund
IBRD/IDA - World Bank
IMF - International Monetary Fund
ACCT - Cultural and Technical Devl. Agency
IFAD - Inter. Fund for Agric. Development
UNDP - United Nations Development Program
FAO - Food and Agricultural Organization
UNESCO - United Nations Educational, Scientific and Cultural Organization
UNIDO - United Nations Indust. Devl. Org.
UNDTCD - Dept. of Techn. Cooperation For Devl.
UNICEF - United Nations Children's Fund
WHO - World Health Organization
WMO - World Meteorological Organization

Non-Government Organizations

* AFRICARE
* CARE MALI
* International Foster Parents Plan
* AFL-CIO (African American Labor Center)
* The African American Institute
* American Friends Service Committee
* MAP International
* Summer Institute of Linguistics
* United World Mission
* World Rehabilitation Fund
* World Relief Corporation
* World Vision Relief Organization

OPEC Countries and Financial Institutions

AFESD - Arab Fund For Econ. and Social Devl.
Saudi Arabia
ABEDA - ARAB BANK for Econ. Devl. in Africa
Is.DB - Islamic Development Bank
United Arab Emirates
OPEC Special Fund
Iraq
Kuwait
Libya

EURO ACTION SAHEL
HELVETAS (Swiss)
Aqua Viva (French)
Volontaires du Progres (French)
ELF Solaire (French)

* Listed in TAICH Country Report for Mali, April 1980.

EXTERNAL ASSISTANCE TO MALI 1979

(Commitments - US $ Million equivalent)

MAJOR DONORS | TYPES OF ASSISTANCE

Country/Organization	NON - PROJECT				PROJECT					TOTAL
	Budget	CIP[a]/ BP	Food	Others[b]/	Agric Lvstk	Ind Infrast Energy	Health	Educ	Others[c]/	
OECD COUNTRIES										
France (FAC - CCCE)	3.5	-	-	3.3	8.2	17.4	.1	.8	12.9	46.0
Germany	-	5.4	1.9	-	4.8	38.9	.4	1.5	.7	53.6
CANADA (ACDI - CRDI)	-	-	-	-	-	2.4	@	.3	-	2.7
Japan	-	-	1.0	-	.1	1.4	-	-	-	2.5
U.S.	-	-	1.4e/	-	13.2	1.6	1.1	.2	1.0	18.5
Belgium	-	-	1.3	.9	1.2	.5	@	.6	.3	3.1
Netherlands	-	-	-	@	3.0	2.1	-	-	-	5.1
Switzerland	-	-	.2	-	-	2.2	-	.9	-	3.3
Italy	-	-	-	-	-	-	-	-	@	@
Norway	-	-	-	-	.5	-	-	-	-	.5
United Kingdom	-	-	@	-	@	@	-	-	-	@
SUB-TOTAL[d]/ =	3.5	5.4	5.8	4.2	30.0	66.5	1.6	3.3	15.2	135.5

EXTERNAL ASSISTANCE TO MALI 1979

(Commitments - US $ Million equivalent)

MAJOR DONORS | **TYPES OF ASSISTANCE**

Country/Organization	NON - PROJECT				PROJECT					TOTAL
	Budget	CIP[a]/ BP	Food	Others[b]	Agric Lvstk	Ind Infrast Energy	Health	Educ	Others[c]	
OPEC COUNTRIES AND FINANCIAL INSTITUTIONS										
Is.DB	-	7.9	-	-	-	8.0	-	-	-	15.9
OPEC Special Fund	-	-	-	-	-	7.0	-	-	-	7.0
ABEDA	-	-	-	-	-	10.0	-	-	-	10.0
Saudi Arabia	-	-	**	-	**	-	-	-	-	**
Kuwait	-	-	-	-	-	**	-	-	-	**
IRAQ Fund	-	-	-	-	-	**	-	-	-	**
ABU DHABI	-	-	-	-	-	**	-	-	-	**
SUB-TOTAL [d]	-	7.9	-	-	-	25.0	-	-	-	32.9

EXTERNAL ASSISTANCE TO MALI 1979

(Commitments - (US $ Million equivalent)

MAJOR DONORS | **TYPES OF ASSISTANCE**

Country/Organization	NON - PROJECT				PROJECT					
	Budget	CIP BP [a]	Food	Others [b]	Agric Lvstk	Ind Infrast Energy	Health	Educ	Others [c]	TOTAL
MULTILATERAL DONORS										
(Excluding OPEC)										
ADF - ADB	-	-	-	-	-	8.5	-	-	-	8.5
EDF	-	6.1	2.1	-	4.4	7.7	.3	-	-	20.6
IBRD (IDA)	-	-	-	-	4.5	4.5	12.0	-	-	21.0
IMF	-	-	-	-	-	-	-	-	-	-
ACCT	-	-	-	-	-	-	-	@	-	@
FIDA	-	-	-	-	-	-	-	-	-	-
WHO	-	-	-	-	-	-	-	.2	.1	.3
WFP	-	-	1.3	-	-	-	-	-	-	1.3
FAO	-	-	-	-	.6	-	-	-	-	.6
UNIDO	-	-	-	-	-	.3	-	-	.5	.8
UNDP/OPE	-	-	-	-	-	-	-	-	@	@
UNICEF	-	-	-	-	-	-	3.7	-	-	3.7
UNSO	-	-	-	-	1.8	20.0	-	-	-	21.8
UNFP/FNUAP	-	-	-	-	-	-	1.0	-	-	1.0
UNDP/WMO	-	-	-	-	@	-	-	-	-	@
UNCDF	-	-	-	-	-	.5	-	-	-	.5
UNDTCD	-	-	-	-	-	1.3	-	@	.4	1.7
UNESCO	-	-	-	-	-	-	-	.7	-	.7
UNDP/Others	-	-	-	-	-	-	-	@	.6	.6
SUB-TOTAL [d]	-	6.1	3.4	-	11.3	42.8	17.0	.9	1.6	83.1
TOTAL Commitments in 1979	3.5	19.4	9.2	4.2	41.3	134.3	18.6	4.2	16.8	251.5
OECD, OPEC, Multilateral donors										

COMMUNIST COUNTRIES EXTERNAL ASSISTANCE TO MALI

(US $ Million equivalent)

1970 - 1979

MAJOR DONORS — TYPES OF ASSISTANCE

Country/Organization	NON - PROJECT				PROJECT					TOTAL
	Budget	CIP[a]/ BP	Food	Others[b]/	Agric Lvstk	Ind Infast Energy	Health	Educ	Others[c]/	
COMMUNIST COUNTRIES										
USSR	-	-	.6	-	-	15.7	-	-	-	16.3
China	-	2.0	-	20.0	25.2			-	-	47.2
TOTAL [d]/ =	-	2.0	.6	20.0	25.2	15.7	-	-	-	63.5

NOTE: Assistance commitments are shown for period between 1970 and 1979.

Other Communist countries not recorded here provide the following types of assistance:

North Korea - Irrigated Perimeters

Yugoslavia - Builds stores for SOMIEX, assists AIR MALI and PHARMACIE POPULAIRE

Democratic Republic of Germany assists in Health and Youth Organizations

Rumania and Bulgaria have provided scholarships.

EXTERNAL ASSISTANCE DONORS TO MALI

SOURCE: CILSS/Club du Sahel, Official Development Assistance to CILSS Member Countries from 1975 to 1979 Oct. 1980 Preliminary Report Volume II

Information available to USAID/Mali has been added. The report contains apparent discrepancies, probably due to differences in valuing assistance and reporting periods among assistance donors. Nevertheless, amounts generally reflect magnitude and sectors of emphasis by the various donors. It should be noted that assistance amounts are shown for 1979 commitments for all donors except the Communist countries (USSR and China), for which amounts 1970-79 are indicated.

NOTES:

a/ CIP = Commodity Import Program

BP = Balance of Payments assistance

b/ Other non-project assistance includes cultural programs and humanitarian aid.

c/ Other project assistance includes general technical assistance and research not applicable to specific project.

d/ Discrepancies between totals due to rounding.

e/ Food aid provided by U.S. in 1978 has been recorded for 1979.

@ Indicates assistance amounting to less than $50,000 (i.e. less than $0.1 million).

** Indicates areas of significant amounts of foreign assistance to Mali for which estimates are not available.

Assistance provided to Mali by Non-Government Organizations (NGO) may have been recorded by OECD donor countries. Most NGOs provide assistance in fields of health and nutrition amounting to less than $1.0 million annually.

USAID/Mali
January 1981