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COUNTRY DEVELOPMENT STRATEGY STATEMENT

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UPPER VOLTA

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COUNTRY DEVELOPMENT STRATEGY STATEMENT

UPPER VOLTA

Approved: John A. Hoskins
Mission Director

Approved: Thomas D. Boyatt
Ambassador

Prepared by USAID/Upper Volta
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Executive Summary

With a per capita income of $110, located far from the coast and possessing a meager natural resource base, Upper Volta faces an enormous development challenge. Opportunities for economic growth in the short run are limited to agriculture, some light industry and the possibility of manganese mining. In addition, the trained human resource base is small and the country's infrastructure is limited. Almost every development effort is faced with a variety of interlocking constraints which make it unproductive to attack a single constraint at a time.

Among these constraints two of the most important are a lack of trained personnel and the inability to meet recurrent costs of development projects. The low level of literacy inhibits effective dissemination of new agricultural techniques. The lack of infrastructure makes transportation and communication expensive. Soils are generally mediocre and fallow time for restoration is growing shorter as population increases. Deforestation due to growing demand for firewood threatens to force conversion to dung for fuel in some areas, thereby reducing the use of manure to restore soil fertility. Limited availability of water not only keeps rural water consumption down to 5 liters per person daily, it also discourages vegetable gardening which could significantly improve nutritionally deficient diets. Existing techniques of farming give low yields per hectare and limited potential surpluses. Poor health and few health care facilities make rural life difficult and hazardous.

Poverty is so pervasive and the resource base so weak that Upper Volta's development prospects may seem bleak. But on the positive side

economic growth has remained ahead of population increase despite the drought years and without the benefit of mineral exploitation. The country's policies favor small and medium-sized enterprises and agricultural development is directed toward the small farmer. Finally, the country has returned to democratic government. Given the severe resource constraints and the impossibility of addressing all development problems at once, this government's approach to development is sound and compatible with AID's Congressional Mandate.

The Mission strategy in assisting Upper Volta in its development within the Club du Sahel/CILSS first generation of projects concentrates first on increasing agricultural production and second to improve the quality of rural life. The first objective is being met through the introduction of new seed varieties, new farming and herding techniques, strengthening of agricultural education and extension,improvement of marketing systems and infrastructure to reduce the costs and risks of commercial farming and herding. The second objective is being pursued through increasing the availability of potable water and, to the extent funding permits, aiding in the introduction of a rural health delivery system, a reformed primary education system, strengthening the roles of women in development and taking measures to protect the environment. PL 480 food aid is used to meet nutrtional requirements of children and pregnant women as well as emergency feeding when necessary, while the capacity of the country to produce agricultural surpluses is being improved.

The planned quintupling of the AID program by 1985 will permit a much broader program than is feasible at current levels of assistance, while organization of USAID management into technical sections

rather than project by project staffing will permit expansion of the program with relatively modest increases in direct hire personnel.

A. Analytical Description of the Poor

Upper Volta is identified by the United Nations as one of the world's poorest countries. While the GOUV does not have an official definition of poverty, publicly and privately governmental leaders cite frequently the usual characteristics of poverty: hunger, ignorance and disease. Even this vague definition of poverty would include more than 85% of the population. The ILO poverty line for Africa is set at $205 annual income per capita in 1972 prices. While no study exists of income distribution in Upper Volta, a conservative estimate would be that fully 90% of the population is below this poverty line. The only elements above the line are the 23,000 public employees whose income averages $1,800, the 20,000 registered employees of the private (non-farm) sector, and the 5% of farm families who produce more than $200 per capita.

While there is widespread poverty, it is by no means uniform. Populations are generally better off in the west and southwest where there are richer soils and more abundant rainfall. The great Mossi plateau in central Upper Volta is densely populated despite its poor soils and its people are generally poorer than in the more sparsely populated southwest and southeast. The poorest area of the country is the Sahel which, because of its aridity, depends on animal herding for most of its income.

There is also the obvious disparity of incomes between urban and rural areas. The professions, government services, and nearly all industry and processing are located in or near urban and semi-urban areas. Higher urban incomes have attracted a large number of people from the overcrowded Mossi plateau, and the so-called zones

of spontaneous habitation are growing rapidly. In these zones live the hawkers, unskilled laborers and persons newly arrived from the bush. While their housing is generally adequate (one does not see cardboard or temporary shelters), these areas have inadequate sanitation, no public services, and insufficient access to potable water.

Poverty is distributed among ethnic groups according to their geographic location. GOUV investment policy has tended to favor the southwest and the towns because of their greater potential for economic growth, thus benefiting the ethnic groups in these areas. This has occurred in spite of the political power of the Mossi who inhabit the vast central plateau. The Fulani of the Sahel have been most neglected by the pattern of investments, but it is primarily their geographic location in the dry north which has caused this neglect.

Problems of Youth

The prevailing traditional organization of society does not favor youth, particularly rural youth. The head of each family provides for his sons' and daughters' needs but these "needs" have changed while the views of parents have not. Since the disposition of family income is decided by the father, the young men find that they must leave their families for a time to lead their own lives. Young men generally own no land and may inherit it only much later in life. Thus, young men, whether as family members or in cooperative groups, are discouraged from investing in land improvement and sometimes cannot obtain land to farm. Rural youth either patiently await the responsibility and economic control that come with the father's death or migrate to take advantage of the opportunities that exist in the town and in neighboring countries.

Land Tenure

In the traditional system, land jurisdiction is the responsibility of a chief of the land, who in most Voltaic ethnic groups is not the political chief. Families tend to retain land accorded to them as long as they demonstrate need. However, the chief of the land may transfer use rights to another family if land remains unused for too long. Thus the community through the land chief is the ultimate arbiter of land use. The customary land tenure system is recognized under national law, but the western system of individual ownership and transfers registered with the government is gaining in importance, particularly near the large towns.

The land tenure system is sometimes said to discourage investment in land improvements since individual tenure is not secure. However, rights are sufficiently secure that land remains in most families for many generations. In addition, communal rights may help guard against misuse of land. In our view, land improvement has not taken place because long-fallow shifting cultivation has been more economical than fixed fields requiring fencing, fertilizing, drainage and other improvements. As fallow periods shorten and soil fertility declines, the return on investment in land improvement will increase. The Mission will continue to examine the evolution of the land tenure situation and will use its rural development strategy to encourage appropriate investments in land improvement.

Economic Status of Rural Women

While conditions vary from one ethnic group to another, it is possible to characterize women's position in general terms. Like all family members, the woman must work in the family field. However, she also has her own fields where she may grow whatever she wishes

and retain the income. She may also engage in trade and raise small animals. Where conditions permit, women do family gardens and sell the surplus to earn money for themselves. In contrast, income from the family fields is held by the head of the household to meet the needs of the family.

The modernization of agriculture tends not to benefit women. Extension agents are male and generally work only with men. New techniques often require more work in the family field (the larger fields require more weeding and spreading of fertilizer) and take away from the woman's time in her own fields. The growing scarcity of foodstuffs which can be gathered in the bush contributes to her impoverishment since she is obliged to buy more products while her purchasing power has not increased.

In the towns, non-salaried women tend to depend more on their husbands' incomes than in rural areas. Some of them sell fruit and vegetables, cloth, groundnut paste, condiments and other goods. Others prepare food for sale and many brew millet beer.

Education

Coverage of the school system is among the lowest in the world. Only 13.3% of school-aged children attend primary school, yet budgeted expenditures for education amount to twenty percent of the national budget. And this figure does not include local government support, parents' payments for private schools and foreign assistance.

In 1977, there were 150,000 primary school students in about 2800 classes. Average class size surpassed 50 and classes of 70 to 80 students were not uncommon. In primary schools, boys outnumber girls nearly two to one with a much higher ratio of boys to girls in rural areas than in towns. One out of six schools is located in either

Ouagadougou or Bobo-Dioulasso, the two largest towns with about 7% of the total population. Finally, only 1 in 5 primary school teachers is female.

Rural primary schools seem to have fewer materials than schools in town, but neither are well equipped. Rural schools often cover very large areas with many students unable to eat morning or noon meals because of the distance from their homes.

There are 55 secondary schools for almost 18,000 students and 12,500 more students in vocational schools. This amounts to less than 3% of the population ages 12 to 18. Here the ratio of boys to girls is even higher than in primary schools: 3 to 1. 30% of the secondary school teachers are provided through foreign assistance.

The University of Ouagadougou was opened in 1974. It has schools of Literature and Arts, a Polytechnical school teaching agronomy, forestry, and animal husbandry, and schools of business, economics, mathematics and physics. A law school and a University Center for Health Sciences are planned. Enrollments have increased from 210 students in higher education in 1964 (only nine were women) to 2,700 students in 1977, (about 4 students per 10,000 population).

Not only is a very small proportion of the population literate (about 5%), the rate of functional literacy is undoubtedly lower. Many children leave after only two to four years and only one child in six continues beyond sixth grade. The chances of losing literacy after dropping out of primary school are very great. As reading materials are particularly scarce in rural areas, especially materials relating to farming, so the benefits of literacy are easily lost.

Health

Health conditions are very poor, and the health infrastructure is weak. There are numberous endemic diseses: malaria, measles, meningitis, onchocerciasis and gastro-enteritis. There were nearly 20,000 cases of meningitis in 1970, ten times the number occurring in 1965. Upper Volta is part of the meningitis belt in Africa. Onchocerciasis affects 400,000 people and contributes to keeping hundreds of thousands of hectares of fertile land out of production. Measles, malaria and gastro-enteritis aggravated by malnutrition are the principal causes of the high infant mortality rate. By contrast, considerable progress has been made against leprosy, tripanosomiasis, and tuberculosis.

If one includes all foreign doctors and doctors whose principal tasks are administrative, there is one doctor for every 52,000 inhabitants. There is one Voltaic doctor for every 142,000 inhabitants. However, in 1975, there was only one doctor for the 350,000 inhabitants of the Center-North region and not one for the 186,000 inhabitants of the Sahel. There is one nurse for every 15 to 16,000 inhabitants.

There is one trained midwife for nearly 3,000 pregnant women and most deliveries do not occur at health centers. MCH consultations reach about 16% of all infants. Prenatal care and advice are given to 42% of pregnant women, but fewer than a quarter of these women deliver with the assistance of a health professional. 70% of trained midwives work in the two major towns.

The concentration of health professionals and facilities in the towns and the emphasis on curative medicine in the poorly-equipped understaffed rural centers and dispensaries make it clear that the quality of health care received by villagers is terribly low.

Water

Increased access to safe water alone could drastically reduce gastro-enteritic disease. In 1975, only 100,000 people had running water in their courtyards, and an estimated 70,000 more bought water from the public fountains. In rural areas there is no piped water. Between 1964 and 1975, approximately 2900 cement-lined wells were dug. Water is pulled up in buckets by hand. In many villages the wells run dry and women may walk ten to fifteen kilometers to get water in a low-lying area and return carrying the water in containers on their heads. What water is available is often the source of debilitating disease from guinea worms, hookworms and amoebas. The CILSS estimated that rural people consumed only 5 liters per person per day of water against 75 liters daily per capita consumption in town. The problem of rural water supply is a priority concern of the government as an important aspect of improving the quality of life in rural areas and increasing the production of nutritious foods in village gardens for which water is the principal constraint.

Family Planning

The population grew by 2.3% per year from 1970 to 1975. Emigration reduces the growth of the resident population to about 2% per year. Sustained population growth is one of the causes of environmental degradation, deforestation, and soil deterioration. Nonetheless, there is still no official policy on family planning. A 1977 seminar organized by the Federation of Voltaic Women did draw attention to the problem of short birth intervals and the utility of services for child spacing to urban and semi-urban populations. However, the Government puts first priority on reducing infant mortality and protecting

the health of mothers and children. Population research is now recognized as a responsibility of the Ministry of Plan.

Fuel

Wood is the principal source of fuel for cooking and heating. Firewood continues to rise in price as wood becomes scarcer. It now costs about 3.3¢ a kilogram amounting to $22 per capita annually for firewood in Ouagadougou. This represents perhaps 30% of the purchasing power of the poorest strata of Ouagadougou society. Yet other sources of energy are more than three times as costly as wood, so wood is likely to remain the preferred fuel source. Pressure on forests will continue to grow and the CILSS estimates that demand for wood will continue to grow faster than projected supply.

Nutrition

Nutritional deficiency contributes to the severity of diseases in Upper Volta, and is particularly serious for young children and pregnant women. The lack of adequate weaning foods makes the transition from breast feeding to the adult diet a particularly drastic and difficult step to take.

The typical diet consists largely of carbohydrates such as millet, sorghum, corn and rice, plus some roots and tubers. The daily caloric intake is estimated at 2200 calories per person and only 45 grams of protein of which 4 to 5 grams is animal protein. The recommended diet contains 84 grams of protein of which 40 grams should be animal protein.

Summary

Upper Volta is ranked fifth lowest in the world in per capita income 1/ slightly ahead of Mali and just behind Chad among Sahelian

1/ I.B.R.D. World Development Report, 1978, p. 76. The poorest countries by this criterion are Bhutan, Cambodia, Lao PDR and Ethiopia.

countries. Conditions in all sectors of the economy and all aspects of life reflect the pervasive poverty of the country. Techniques of agricultural production are adapted to subsistence rather than reliance on the market. This level of technology produces low yields and makes it difficult to expand output. Attempts to extend new techniques are hindered by illiteracy. The badly maintained road network makes marketing of farm products costly and limits access to goods and services which would make increasing farm production worthwhile to the farmer. Health services and education are of low quality and reach only a small percentage of the rural population.

The degree and pervaisveness of poverty in all its dimensions generate a set of constraints to development which must be addessed. After examining the recent evolution of the economy, we will describe how the GOUV has addressed these development problems and how Mission strategy can contribute to this effort.

B. 1. Economic Situation and Trends

Per capita income in Upper Volta has increased by only .8% per year since independence in 1960 and is now estimated at $110. Ninety per cent of the population lives in rural areas and depends upon agriculture for a livelihood. Average per capita income from agriculture alone is $40. Since all other productive activities in rural areas add less value than agriculture, the average per capita income in rural areas is not likely to exceed $60.

Upper Volta's structural problems are well known. The country is landlocked and trade is constrained by the high cost of transport, both internationally and within the country. Economic growth has been slow for several decades and there is chronic seasonal underemployment.

These problems were exacerbated by the 1969-73 drought and all sectors have been adversely affected by the sharp increase in energy prices.

The economy depends upon dryland agriculture for domestic consumption and regional trade. Exports include livestock, cotton, groundnuts and other agricultural products. Industry accounted for 13% of gross domestic product in 1960 and is now 19% of GDP. Commerce and services account for 21% and 16% of GDP, respectively. Remittances from migrant workers and aid in kind continue to be important sources of national income, amounting to 6% of gross national product.

Economic growth declined severely during 1972 and 1973 at the peak of the drought which greatly reduced purchasing power in the rural sector. Although severe drought has not reappeared in Upper Volta, the effects of that period are still being felt. In the last decade, per capita production of millet and sorghum averaged about 189 kilograms. In the 1970's however, the drought years brought the average down to approximately 160 with only one year, 1975, above 180 kilograms per capita. The post-drought harvests have been generally inferior to thoseof the 60's. This has impeded the reconstitution of on-farm stocks and reduced the production of certain export crops. To meet the deficit, food imports grew during the drought years and have since diminished, but continue to exceed pre-drought levels.

Economic growth as a percent of GNP has been slow but steady since 1974. The most recent figures available show an annual real growth rate of 5.8%, which is 3.7% per capita in real terms between 1974 and 1977. However, the relatively poor performance of the agricultural sector in 1976 and 1977 had a direct negative impact and

also slowed the expansion in industry and trade. Since farmers had only begun reconstituting depleted food grain stocks, the below average harvests of 1976 and 1977 had a particularly marked effect on marketed agricultural output. Marketing of groundnuts and sesame fell drastically. Growth in cotton production was halted in 1976/1977 as farmers shifted back into food crops.

Marketed Output (000's tons)	74/75	75/76	76/77	77/78
Groundnuts (shelled)	19.5	14.9	4.7	1.8
Sesame	4.6	1.7	3.3	1.7
Sheanuts	5.6	48.6	32.4	56.7
Cotton: seeds	11.0	17.9	18.1	38.0
ginned	11.3	18.1	20.3	13.9
Exports (in tons)				
Groundnuts (shelled)	17.5	11.9	4.7	1.8
Sesame	4.6	1.7	3.3	1.7
Sheanuts	.8	41.1	32.4	40.0
Cotton: seeds	-	-	-	n.a.
ginned	10.6	17.4	19.4	n.a.

Source: Caisse de Stabilisation des Prix des Produits agricoles.

In addition to exports of livestock, cotton, and peanuts, Upper Volta has potential as an exporter of cereals and other agricultural products to the coastal countries and to its Sahelian neighbors. The expansion of sugar cane production in the southwest will permit Upper Volta to become a sugar exporter. Growth in cotton exports have offset the decline in groundnut production and exports in recent years.

Industrial development has continued primarily through a policy of import substitution. New enterprises are granted tax holidays and preferential tariff protection to give them time to become competitive with similar enterprises in neighboring countries. The liberal investment code and a policyencouraging Voltaic financial participation has stimulated growth in the private sector. However, this growth is limited by the small domestic market. The development of mining has been stalled

by unfavorable mangagnese prices which reduced the potential profitability of exploiting the Tambao deposits. Other mining, mostly gold and phosphates, contribute insignificant amounts to the national economy.

In Africa, Upper Volta's principal trading partner is the Ivory Coast. Trade with Asian countries has increased, notably Japan, Taiwan and Hong Kong. However, France and the European Economic Community continue to account for more than half of Upper Volta's export receipts. Despite a small decline in the trade deficit between 1974 and 1976, the country remains a net importer on balance. The trade deficit is compensated to some extent by the remittances from migrant labor, principally employed in the Ivory Coast. These were estimated to be about $67 million in 1977.

Upper Volta's development will continue to be strongly influenced by the economic policies of its neighbors, particularly Ghana and the Ivory Coast. Ghana's expulsion of Voltaic labor in 1960 would have had much more serious consequences if the Ivory Coast economy had not at the same time begun to expand rapidly with strong demand for foreign labor. While trade diminished with Ghana because of its poor economic performance, trade with the Ivory Coast increased. If Ghana had continued to grow during the 60's and 70's and had not expelled Voltaic labor, the effect on the development of the entire region would have been strongly positive. Similarly, a slower rate of growth in the Ivorian economy combined with the current policy of Ivorianization of the labor force could depress demand for migrant Voltaic labor. This would both reduce the flow of remittances to Upper Volta, worsening the balance of payments, and increase the pressure of population growth on national resources.

The policies of Mali, Togo, Benin and Niger have a much smaller impact on Voltaic development. Since they share similar cash and food crops, the price policies adopted can influence the amount of smuggling over the borders to take advantage of higher official prices. Thus in recent years it has been advantageous for Malian farmers to sell grain in Upper Volta because the GRM offered a lower sale price than could be obtained across the border. The relatively unimpeded movement of labor, goods and capital across the borders of West African states thus should force each country to set policies consistent with its neighbors'.

Government Policies

The government pursues a number of economic policies common to countries in the West. These policies are more effectively enforced in the formal industrial and commercial sectors. The most important of these is the minimum wage, recently raised to 38 cents an hour for unskilled labor. When social security and taxes are added to the basic minimum wage, (another 7 cents an hour), the cost of unskilled labor to the employer in the formal sector is more than twice as high as the going rate of 18 ¢ an hour in the urban non-formal sector. Unemployment makes the true opportunity cost of labor to the economy even lower. Thus minimum wage policy may have the unplanned effect of encouraging the use of more capital intensive production processes in the formal sector and restricting employment creating investment in industry and commerce.

Upper Volta is part of the West African Monetary Union, sharing a common currency with Togo, Benin, Niger, Senegal and the Ivory Coast. Reforms in this system undertaken in 1974-1975 have strengthened the role of financial institutions in promoting national development, given

more autonomy to member states, and promoted local entrepreneurship. To keep money in the union, the basic discount rate for central bank funds was raised to 8.5%. However, a preferential discount rate of 5.5% was established to finance crop credit to Governments, and loans to small and medium-sized national entrepreneurs (defined as those entrepreneurs with less than $85,000 credit outstanding). Upper Volta has established the following priorities for extension of credit:

1) Rural development

   -- livestock, irrigation and water supply, equipment, productive infrastructure, forestry;

2) Industries using local raw materials;

3) Energy, construction, public works and telecommunications.

The demand for agricultural credit and the traditional system for supplying credit remain poorly understood. Preliminary reports from the Eastern ORD indicate interest rates of 65 to 150% in the traditional system, reflecting the scarcity of capital. However, we are only now beginning to determine the demand for credit in agriculture and the effect which increasing the supply of credit can have on agricultural production. Nevertheless it is clear that extension of credit to rural producers remains a critical bottleneck to development and the establishment of lending priorities at the national level is an important step toward meeting the credit needs for rural development.

About half of government revenue comes from tariffs on imported goods. Thus, proposals for regional economic integration face a serious internal contradiction. If trade is to be encouraged among states, tariff barriers must be reduced and other sources of government revenue must be found. Some progress toward integration was made in abolishing preferential tariffs for goods from EEC countries, while

maintaining them for the CEAO (Economic Community of West Africa) countries. The gains from specialization within a larger economic grouping, such as ECOWAS, are potentially very large, but will require regional planning of investment and the sacrifice of some national autonomy. Upper Volta's development plan calls for support to regional organizations and foreign aid could profitably be used to encourage efforts at regional economic integration.

B. 2. Causes of Poverty

Previous sections describing the poor and the economy have exposed many of the causes of Upper Volta's poverty. The ultimate cause of poverty, of course is the country's virtually total lack of resources. This can ba analyzed under four general categories: Natural Resources Technology, Infrastructure and Human Resources.

a) Natural Resource Endowment and Environment

In a predominantly agricultural economy, the condition of the soils, pastureland and forests is critical to productive potential. Upper Volta can be divided into three ecological zones. The southwest has regular abundant rainfall and reasonably good soils. The Mossi plateau and the southeast receive less rainfall with greater variability in quantity and timing, making crop failures or low yields more likely. The soils are mediocre and yields are not high even in good years. The third zone, the Sahel, is a poor area for sedentary farming. Most of the area is devoted to herding. Except for the southwest and southeast, the agricultural potential of the country is limited by the increasing scarcity of agricultural land and the declining quality of soils.

An equally serious problem for long-term development is the

gradual disappearance of forest. Overexploitation of the forests threatens the climate by altering rates of vaporization of moisture and reduces the amount of vegetation to hold the soils and prevent erosion by wind and rain. The possibility of turning to dung for fuel (as in India) is a serious threat to the fertility of already impoverished soils.

Water resources are also very scarce. The water needed to raise the yields and restore pasture and forest is available only at relatively high cost, yet the long run cost of not developing water resources for these purposes may be very much higher, involving desertification and permanent loss of productive potential.

Upper Volta has no substantial mineral deposits to rely upon to generate resources for economic and social development. In short, Upper Volta is forced to rely upon an unusually meager resource base for its development in the foreseeable future.

b) The Level of Technology

Agricultural Technology - Techniques currently prevailing in agriculture are rudimentary and low in productivity. Nine out of every ten persons of working age are engaged in farming to produce just enough food for themselves and a surplus to feed the one person in ten who is not farming. Comparatively,in the United States, one person on the farm produces food for 24 others. Yields for sorghum, one of the principal food crops, vary from only 290 kg/ha in the north to 885 kg/ha in the more fertile south.

Increasing farm output is also hindered by the lack of inputs to raise productivity (fertilizer, improved equipment, extension agents) and by the low level of effective demand for agricultural products. In responding to the lack of agricultural inputs, one can attempt to reduce

their costs or increase their supply by stimulating the development of rural enterprises to provide such commodities and services.

Herding Technology - Livestock accounts for 30% of exports, yet experts agree that much more meat could be produced by better herd management. The rate of off-take for cattle (slaughter and export) is less than 10% annually and the production of meat per animal is low.

c) Infrastructure

The existing road system is inadequate to support the growth of agricultural markets. Too many areas are literally cut off from supplies of agricultural inputs during the rainy season when they are needed. Expensive stockpiles of inputs and consumer goods have to be established before the rains begin and that is not often economical. Rural populationsare also cut off from access to health and other government services and from supplies of consumer goods in general at this time of year.

Farm products transport costs are high, limiting the extent of markets. Production other than for subsistence needs is thereby discouraged. The value of improving the road network to integrate local market structures and create a national agriculture market is potentially very great, but difficult to quantify with precision. Market integration would increase competition among merchants at the farm gate and benefit the farmer. Better roads would also reduce the costs of his inputs and make consumer goods more readily available to him.

Road maintenance has also been inadequate. The network has generally deteriorated since 1960, even while new roads were being built through foreign assistance.

Other productive infrastructure is also inadequate. The use of

water to reduce the effect of dry spells on crop yields is constrained by a lack of wells, reservoirs, and irrigation systems. Such systems are sufficiently large to require cooperation among groups of small farmers and the availability of credit to construct the system.

Herders also lack certain kinds of collective capital: Vaccination centers, well-placed watering areas, and a mechanism for sharing communally-held pasture perhaps involving modern communication facilities.

d) Human Resource Constraints

The effect of illiteracy on the work force is telling. Written instructions cannot be used. This constraint reduces the efficiency of management in industry and services and it slows down the spread of new techniques through agricultural extension.

There are also specific constraints related to skills needed to eliminate production bottlenecks. The most critical skill shortage is the mid-level manager or technician who has operational responsibilities without being the director or policy maker. Such people are critical to modern enterprises and government operations. At higher levels, there is a shortage of educated specialists in both physical and social sciences to train the next generation of leaders and to advise the current generation. Some steps have been taken to remedy the shortage of skills in these areas, but progress is necessarily slow in starting from such a small base.

In agriculture, the work force is eroded by the pull of opportunities for young men in the coastal areas. On the Mossi plateau, a third of the men aged 20 to 40 are away from their villages during the agricultural season. This reduces the work force considerably since these are men at the peak of their productive years. Only by making agriculture and agriculture-related services more attractive economically

will some of these men decide to remain in the villages.

Finally, the agricultural work force is effectively diminished by disease. Numerous families lose precious planting and weeding time to guinea worms and amoebic dysentery because their water sources are contaminated. Since mosquitoes are abundant in the rainy season, malaria is more frequent as well. It is not certain how much production is reduced through the high morbidity rate, but the prevalence of the numerous diseases flourishing in Upper Volta leads us to believe that the losses must be substantial.

C. Progress and Commitment

Development performance has been very modest since independence. Growth has been most rapid in the industrial sector, while agriculture has tended until recently to stagnate. The GOUV perceived the seriousness of the decline in agricultural productivity in the mid-1960's and created a decentralized system of regional development organizations (ORD's) to meet the development needs of each region.

Unfortunately, the plans of the ORD's were set back severely by the drought years, particularly 1972-1973. Not surprisingly, the best performances were obtained in the west and southwest where adequate rainfall permitted the expansion of cash crops, such as cotton and groundnuts.

Under the ORD system the greatest concentration of extension agents is in the western and southwestern ORD's where yields and production are greatest. These ORD's have attracted more foreign aid and have the greatest concentrations of cotton production. Thus, the GOUV through its decentralized management, and the donors' interest in areas of greatest potential, has pursued in practice a growth-oriented agricultural

policy.

In general, economic development has favored the towns through an increase in industrial employment and the farmers of the west and southwest who have been able to produce more export crops. The herdsmen of the Sahel have been neglected by the GOUV and donors alike. In 1972 the government planned for per capita investment levels in Yatenga and Sahel ORD's almost as high as in the three western ORD's but was unable to obtain adequate financing. The Mossi plateau and the North continue to receive less attention from the GOUV than regions of higher potential.

An example of this growth orientation is seen in the greater allocation of national budget resources to the three ORD's with highest growth potential, Dedougou, Bobo-Dioulasso and Banfora. In 1972-1974, these three ORD's benefitted from five times as many investment funds per capita as the ORD's in the center. During this period ORD program investments in the three western ORD's equalled $6.11 per capita while investment in all other ORD's (except the Sahel) totalled $1.23 per capita. In more recent years this has been balanced somewhat by increased donor focus in the central andeastern parts of the country.

The allocation of 36.2% of the third plan investments to development of mining, industry and industrial infrastructure also indicates a growth orientation. With the continuation of current polciies. it seems clear that the towns and the west and southwest will be the beneficiaries of future economic growth, with many residents of disadvantaged rural areas migrating there to take advantage of these new opportunities.

In addition to its ORD program the GOUV intends to develop the three Volta River valleys, areas of potentially higher agricultural

yields which have been freed of river blindness in the past few years. In 1974 the government created the Volta Valley Authority (AVV) to administer the settlement of 16,000 families by 1990 to farm 120,000 hectares. The third plan (1977-1981) calls for investment of nearly $60 million, but significant external funds are only beginning to be made available. The AVV expects to achieve much higher yields through the use of animal traction, modern inputs, irrigation and a dense network of extension agents to teach modern techniques of farming. This program also reflects the growth-orientation of the GOUV, but it too is based on family farms only slightly larger in total area than traditional ones. The gains in yields are to be achieved through the use of modern techniques on fields which are large enough to make plowing economical, instead of scattering each farmer's holdings over a number of smaller fields.

Expenditures under prior development plans have been heavily weighted toward economic infrastructure (about half) with only a fifth of expenditures on agricultural projects. Under the second development plan (1972-1976), 30% of investments were to be for rural development and 28% for infrastructure, but actual investments through 1974 were only 18% for rural development and 43% for infrastructure. 1/

Thus, while the GOUV places great emphasis on rural development in its public pronouncements, it has been much more successful in obtaining financing for infrastructure projects than for rural development. As its financial resources are severely limited, priorities in practice tend to be heavily influenced towards the activities external aid donors are willing to finance. The growth orientation of the GOUV is

1/ Les Bilans d'Exécution du Deuxième Plan 1972-1976, République de Haute-Volta, 1972, 1973, 1974.

demonstrated by the criteria for project selection in the third plan (1977-1981. They are (1) value added, (2) impact on the national economy (stimulation of other sectors of the economy), and (3) moderate recurrent costs. These criteria result in an emphasis on investments which can achieve the highest real growth rate possible for 1977-1981 given the absorptive capacity of the economy. However, project selection is modified to meet the stated equity goal of allowing every Voltaic to satisfy his basic needs, including access to education and health services.

The GOUV emphasis on growth is not misplaced because its development approach already has strong elements of equity in it. These elements include the promotion of rural development by and for small farmers and a decentralized system of administration which emphasizes local participation. Strategies for increasing productivity of cash and food crops are directed at small farmers and, with the exception of sugar cane, do not involve the creation of plantations or state farms. Moreover, a community development approach has been adopted for rural development. Thus the framework within which the GOUV has chosen to pursue development basically involves an equity orientation, i.e., local participation and assistance to the small farmer.

Another aspect of the strategy emphasizing small farmer production is the effort to increase cereals production through price incentives and improvements in the marketing and storage systems. The reform of the GOUV national cereals policy is a step in this direction. The reform includes raising the official cereal price by 25% and putting all public storage facilities under the direction of the national cereals office (OFNACER), encouraging the private creation of village cereals banks and devising a system of warehouses to supply rural

consumers with grain during the pre-harvest hungry period.

An important corollary to the GOUV's growth strategy is the importance attached to participation in the regional economy. The country has always benefitted from trade with neighboring countries and its potential for economic growth is increased to the extent that it adopts a more specialized role within a larger economic unit.

Other Aspects of the GOUV Policy

The GOUV is establishing the basis for fundamental reform of its educational system. The creation of the National Institute for Education is a step toward defining the role of education in the development process. The Ministry of Education has approved an experiment to include nutrition education and school gardens as part of the core curriculum for primary schools in the Tenkodogo area. These are important initiatives in the attempt to make schooling meaningful to all students, whether or not they can continue to higher levels. It is only the beginning of a serious effort to reform and extend the educational system making it directly relevant to the development needs of the country.

The Ministry of Health has proposed the establishement of a national rural health delivery system, similar in concept to the systems in Mali and Niger. This would be a significant break from the curative orientation that has prevailed for several decades in the GOUV approach to health care.

With the prospect of basic reform in both health and education, the GOUV is creating a policy base to improve upon its generally poor record in educating its people and reducing mortality and morbidity, whenever external funding becomes available for these purposes.

Human Rights

Upper Volta has peacefully transformed its government from military rule to a civilian democracy. This transition is unique among Sahelian countries and demonstrates its commitment to popular participation. The freedom of expression which characterized the recent elections was exemplary. The importance of this experience is the opportunity for all Voltaics to participate actively in the shaping of the country's development. Freedom of speach, assembly, religion and the press and from arbitrary arrest and imprisonment are all observed with a rigor unusual for developing countries. In community development the traditional rights of small farmers are not questioned. While there is a tendency for extension services to assume a directive mode of management, there is no coercion of individuals to participate against their will. Trade and commerce function within markets which are generally free. Price regulations for a small range of goods are meant to protect the rural consumer and radio announcements on prices are made several times a week in French and local languages to inform the consumer. Minimum wage policy is intended to protect unskilled workers. While these social policies may not always fully accomplish their stated goals, their clear intent is to protect the interests of the individual.

D. Plan and Budget

The third development plan, 1977-1981, has not yet been approved by the GOUV, but it has been possible to consult preliminary planning documents. These plans call for total investment of $1.3 billion to achieve an increase in production of $200 million per year by 1981. This represents a considerable increase over previous planning levels. The first plan 1967-71 was for $176 million and the second plan 1972-76

amounted to $268 million. 65% of planned investment was achieved during the first plan. From 1972 to 1974 more investments were made than had been planned. However, this resulted from unexpected levels of external funding for infrastructure projects. Otherwise, the GOUV was only slightly better at fulfilling its plans in other sectors than it had been in previous years.

The quantum jump in levels of investment for the third plan reflects the increased availability of foreign financing. The GOUV maintains that this is well within its capabilities and that there are firm promises for much of the $1,070 million of expected foreign aid. The national contribution to financing the plan is set at $110 million with the source of the remaining $130 million to be determined. 60% for the national investment is expected to come from the private sector.

According to calculations of the Ministry of Plan successful implementation of the plan will result in an annual real rate of growth of 7.7% and raise per capita income to $133 in 1981 (1977 dollars).

It is the intention of the GOUV to concentrate its efforts in areas of greatest growth potential, thus the benefits will accrue principally to the populations of the three most productive ORD's and the towns of Ouagadougou, Bobo-Dioulasso, Dedougou, Koudougou, and Kaya.

The planned (but not yet financed) development of mining in the Sahel and extension of the railroad to the Tambao manganese deposits would have considerable impact on the rural economy of the northern region by reducing the costs of transporting animals and improving access to southern markets. However, linkages between the mining activity itself and the local economy would probably be minimal and would

not greatly benefit the people of the Sahel other than through improved transportation.

The satisfaction of basic human needs will not be greatly improved by the present plan. Primary school enrollments will increase from 150,000 in 1976-1977 to nearly 200,000 in 1980-1981 thereby raising the rate of attendance from 13.3 to 15.6%. Secondary and vocational school enrollments will increase modestly and university enrollments will be nearly 3500 by the end of the planning period.

The plan is critical of the current school system for its high cost (20% of the national budget) and its inefficiency. It takes an average of 24 student-years to produce one primary school graduate due to the high dropout rate. It also mentions the great gap between the 70% rate of school attendance in urban areas and the 9% rate in rural areas. To remedy some of these problems, the Ministry of Education is seaking to reduce the costs of school buildings in rural areas, to increase the young farmers' training program, and to reform the primary school curriculum. However, the expected results in terms of educated individuals are quite modest and it does not appear likely that the rate of school attendance will be increased to 50% by 1987 as is the stated intention of the Ministry.

The Ministry of Health plans to increase its medical personnel from almost 1500 in 1976 to more than 2300 in 1981. The number of midwives will be nearly tripled; there will be twice as many doctors and 50% more nurses. However, the program appears to be slanted as heavily toward curative programs as it has been in the past. Thus the benefits of increased coverage can be expected to accrue largely to the towns, and to areas which already have relatively better coverage. A small shift towards preventive health care is discernible in some of the

future directions discussed in the plan. It calls for direct association of the rural population with the health service to increase the effectiveness of public health measures. Nonetheless, the plan project list shows only about 30% of total financing designated for purposes of vaccination programs and primary health care in rural areas with the rest devoted to improvement of regional and national hospitals, training of personnel and creation of the University Center for Health Sciences.

However, the Health Ministry has recently presented a substantial project to the CILSS for a comprehensive rural health delivery system, which signals an increased awareness and interest in the importance of preventive and primary health care for rural areas. This project represents a departure from the current draft of the Plan and deserves serious attention from the donor community.

Execution of the 1977-1981 plan will result in 25,400 new jobs in the modern public and private sectors, a 61% increase over levels of employment in 1976. The plan's analysis suggests that there will be shortages of qualified personnel in higher education, secondary education, medecine and technicians for construction, public works, and industry. This analysis suggests that shortages of skilled mid-level personnel may compromise the effective execution of the third development plan. The importance of the educational system to the development of the economy makes it clear that reform and expansion of the existing system, although expensive in the short run, is a prerequisite for more rapid growth.

Faced with shortages of skilled personnel and the uncertainty of foreign financing, it is not likely that the plan will be fully executed.

Concessional loans and grants to Upper Volta totalled $146 million in 1976. To reach the planned $1,070 million for 1977-1981, annual aid must be 50% higher.

Since the very large project ($251 million) to build a rail line north from Ouagadougou and develop the manganese mines at Tambao is not yet financed, it will not contribute to meeting the objectives of the current plan. Without this investment in mining, growth of GDP will not exceed 5.6% per year. While the outlook is favourable for industry and commerce, continued stagnation in the agricultural sector and further delays in the Tambao project lead us to expect a growth rate of less than 5% per year in real terms.

Budget

Growth of the public sector has been more rapid than growth in the general economy. This is likely to continue under the third plan. The fastest growing expense items are scholarships, equipment, counterpart funds for foreign aid, and contributions to international and inter-african organizations. The most important ministries are those of Education, National Defense, and Public Health which account for about 18.4, 18.4 and 7.8%, respectively, of the last budget (1978). The budget for 1979 is 35.7 billion CFA francs ($151 million), twice the size of the 1975 budget.

The Ministry of Rural Development has an operating budget of nearly $6 million, not far behind Public Health. The GOUV also subsidizes the Volta Valley Authority and the ORD's, making its contribution to rural development about 5.5% of the national budget.

The third plan and recent budgets reveal the importance attached to agriculture and the rural sector and the limited resources available

to address the problems of this sector. National defense and security take a third of the operating budgets while health and education take another quarter. Of the remaining resources, rural development receives the largest share. By comparison, other ministries, such as Environment and Tourism, Public Works, and Foreign Affairs, have operating budgets less than a third the size of Rural Development.

The budget does not include foreign assistance which further reflects GOUV priorities since it allocates a third of total aid to rural development. If both the budget and foreign assistance are considered together, more than a fifth of public resources are allocated to rural development.

The third plan also reveals that the GOUV intends to revise its systems of education and health care to address the problems of rural people. Through greater expenditures for education reform and village health care, the fraction of the budget actually devoted to rural development would be increased substantially. As has been true in the past, the way the plan is actually carried out and the relative emphasis placed in practice on various sectors will depend in significant part on the sectors to which donors are willing to commit financing. Thus, for example, heavy donor emphasis on rural development would likely cause shifts in GOUV emphasis toward that sector.

E. Absorptive Capacity

The principal obstacles to the expansion of effective development assistance prgrams are the shortage of middle-level managers and technicians and the limited amount of resources that can be generated for recurrent cost financing. The educational system has a very small base and secondary school graduates represent only 2% of their age group. Consequently, mid-level managers with post-secondary school training

are a very select group. As of 1975, the government employed 782 university graduates as senior officials and 4,647 mid-level personnel.

Measures have been taken to remedy this shortage. The University of Ouagadougou now graduates about twenty Voltaics per year who have followed an undergraduate business curriculum. Demand for their services is great and they are employed immediately upon graduation. The size of entering classes has been doubled, but it is clear that the supply of skilled mid-level managers will continue to be inadequate to meet the demand in both private and public sectors.

Similar shortages exist with respect to technicians. There too, the University has expanded its program to train agronomists and agricultural technicians. In addition, the Ministry of Rural Development is expanding its agricultural schools to train more technicians as well as more extension agents. However, shortages in these categories are likely to remain relative constraints to development for many years to come.

Another serious problem is the limited resource base for financing recurrent costs. The problem is related to the lack of human capital, because the acceleration of long-term development requires relatively heavy investment in education and training with a low near-term return on investment. The optimal long-term development strategy can, therefore, generate heavy recurrent costs in the short term.

The Mission is currently engaged in an analysis of the costs that the GOUV must assume to carry on project activities after external funding terminates. The comprehensive analysis of recurrent costs from all donor and government development activities necessarily awaits the completion of the CILSS Sahel-wide study. Preliminary analysis of

important AID projects to date suggests the schedule of recurrent costs to be assumed by the GOUV shown in the table below.

Other donor activities were examined by sector. We have estimated recurrent costs for these activities on the assumption that they resemble AID project interventions in the same sectors. These recurrent cost estimates have a wide range of error and are based on the general assumption that recurrent costs include all project-related personnel and equipment which must be maintained at the end of a project to carry out the objectives of the original project and a portion of GOUV administrative costs which are incurred because of these projects.

Growth in the Voltaic economy, in large measure due to donor financing and a continued increase in the relative importance of public revenue generation lead us to estimate the capacity for recurrent cost financing in very general terms which is included in the table below:

	(in millions of 1977 dollars)			
	1979	1980	1981	1982
GNP Projection (5.6% real growth/year)	797	842	891	942
Public Sector revenues as % of GNP	16.3	16.8	17.3	17.8
Projected GOUV Revenues	129.9	141.5	154.1	167.1
Increase in GOUV Revenues (potentially available for recurrent cost financing)	10.9	11.6	12.6	13.6
Increase in demand for public services (3% per year)	3.6	3.9	4.3	4.6
Annual increase in recurrent costs (estimate)	4.5	7.0	9.0	10.4
(Annual increase in recurrent costs from AID Projects)	(--)	(0.1)	(0.1)	(0.9)
Revenues available for new projects	2.8	0.7	-0.7	-1.4

In the next two to three years, several AID projects will terminate

The Mission proposes to design follow-on activities for at least one of these projects which will include financing of elements which would otherwise have become GOUV responsibilities. This will effectively reduce GOUV recurrent cost charges by about half a million dollars and substantially reduce the magnitude of this problem for AID projects while a longer-term policy is being developed.

However, as a general approach, the Mission recommends that recurrent cost financing be made a part of the initial project design and review process. Since the GOUV will be faced with a significant financing gap for several decades before long-term investments begin to pay off, the projects which require recurrent cost funding at normal end-of-project should have this funding requirement clearly specified at the outset. Production projects may have no post-project recurrent costs, but health, education, and infrastructure projects are likely to require significant amounts of post-project financing. We propose to tie such recurrent cost financing to specific projects in order to review the progress of each project and evaluate end-of-project financing requirements.

F. Other Donors

Assistance to Upper Volta is provided mostly in the form of grants and concessional loans, although nearly 10% of assistance in 1977 consisted of relatively hard loans from the French Caisse Centrale de Cooperation Economique and others for industrial development projects and infrastructure. France remains the single most important donor, but her share has fallen from 42% of all aid in 1972 to 18% in 1977. In that period total assistance more than tripled from $51.4 million

20,000 tons per year. Continued assistance at this level is expected until food production is sufficiently stimulated by guaranteed minimum producer prices and improvement of agricultural marketing practices. The tables on the following pages show the sources of aid and the totals for the past six years.

Projected donor flows for 1977-81 exceed $1 billion. In nominal terms this is more than double the $441 million provided under the second plan, 1972-76. According to the Plan the GOUV expects the most important donors to provide the following levels of aid for 1977-81.

Funding Sources	Millions of Dollars	% Aid/ Total Aid
France	175.2	16.7
Federal Republic of Germany	68.8	6.6
U.S.A.I.D.	55.4	5.3
UN/UNDP	31.5	3.0
World Bank Group	76.9	7.3
European Dev. Fund	76.6	7.3
Other Donors	445.8	42.5
Undetermined	119.8	11.4
Total	1,050.0	100.1

In 1977, 80% of grants was for project assistance. The remaining 20% was for technical assistance and scholarships, of which France provided two-thirds. France also provides budgetary support and a subsidy for medical equipment. In 1977, the French budget subsidy amounted to $650,000, a small amount in comparison to total foreign assistance.

Development assistance in 1977 was divided by sectors as follows. Transport and telecommunication received 36% and rural development 33%. Health and education received little project assistance, but technical assistance probably increased their share of the total to about 12%. Another 12% went to industry, mines, energy, water resources and

OFFICIAL DEVELOPMENT ASSISTANCE
(including food assistance) 1/

(in millions of dollars)

Bilateral Funding Source	1975	1976	1977	Total 1975-77	% Aid/ Total Aid
France	21.2	25.5	32.1	78.8	19.5
Federal Republic of Germany	25.4	11.0	17.8	54.2	13.4
Canada	2.2	6.3	35.9	44.4	11.0
Netherlands	4.8	11.7	19.8	36.3	9.0
USAID	9.7	5.6	12.0	27.3	6.7
Other Donors	3.4	1.9	10.8	16.1	4.0
Sub-Total	66.7	62.0	128.4	257.1	63.5
Multilateral Funding Source					
World Bank Group	16.5	29.4	8.8	54.7	13.5
European Development Fund	5.8	17.8	15.7	39.3	9.7
United Nations	7.9	2.1	15.2	25.2	6.2
Others	5.1	5.0	5.6	15.7	3.9
OPEC Countries	2.9	5.5	4.4	12.8	3.2
Sub-Total	38.2	59.8	49.7	147.7	36.5
Total Aid	104.9	121.8	178.1	404.8	100.0

1/ but excluding regional projects which would increase the US's absolute and percent of total contributions.

Source: CILSS/Club du Sahel, Financing the First Generation Programme within the Overal Sahel Development Programme, vol. I A, Nov. 1978.

FOOD AID 1/

(thousands of metric tons)

	1972	1973	1974	1975	1976	1977	Total 72-77	% of Food aid
European Economic Community	16.8	21.7	19.4	2.8	6.6	3.1	70.4	25.6
France	3.5	10.0	10.0	-	3.0	4.0	30.5	11.1
U.S.	27.0	42.2	5.6	6.2	6.0	20.0	107.0	38.9
Canada	2.0	2.3	5.9	3.4	2.4	-	16.0	5.8
Germany	3.0	3.7	3.2	-	-	2.5	12.4	4.5
World Food Program	4.2	6.0	6.5	3.9	1.0	-	21.6	7.9
Others	.5	4.3	12.3	-	-	-	17.1	6.2
TOTAL	57.0	90.2	62.9	16.3	19.0	29.6	275.0	100.0

1/ Other donor data appears to be based on deliveries. Source: European Development Fund, Aperçu de l'Aide Publique Extérieure accordée à la Haute-Volta, 1) de 1972 à 1976 et 2) en 1977. USAID data is based on commitments. Source: USAID.

buildings. The remaining 7% is difficult to categorize due to an incomplete data base.

The objectives of the other donors are basically consistent with those of AID. Loans and grants for industrial development favor the establishment of enterprises for the transformation of agricultural goods. The creation of these industries complements the AID goal of increasing agricultural production.

France continues to support a system of classical education and a health care system with limited impact on the rural population. However, the need to reform the education system is recognized by the GOUV and the WHO is assisting in the preparation of plans for a rural health care delivery system. While both reformed systems are only in early planning stages, it is not expected that the French will oppose these changes. However, to the extent that the traditional approaches persist, they are clearly in competition for the limited resources available.

Given the geographic concentration of donor programs in specific ORD's, there is no conflict with other donor objectives in rural development. Within each ORD, the ORD director and the principal donors co-ordinate assistance and ensure that projects of all donors contribute to the objectives of the ORD program.

At the national level, the ORD programs are given general direction through the General Secretariate for Rural Development. This ensures a commonality of basic policies among the semi-autonomous ORD's.

Coordination of development assistance at the national level is achieved through the Office of Technical and Financial Cooperation located within the Ministry of Plan. Since its small staff is not

adequate to coordinate fully all donor activities, both informal consultation among donors and, to some extent, the geographic division of donor programs also serve as coordinating mechanisms. Similarly, project authrorities,such as AVV and Tambao, are created to coordinate development assistance when projects are large enough to require multidonor financing.

The CILSS also plays an important role in facilitating donor coordination for the country components of projects conceived initially on a regional basis. In addition to this coordinating function, the Club du Sahel/CILSS working group system has considerably advanced donor-recipient discussions on health, education, energy and environment. The beneficial effects of these working groups are being seen in revised strategies for meeting the needs of a larger fraction of Upper Volta's population.

These arrangements have been reasonably satisfactory to date, but the size and complexity of the foreign aid program is increasing. It is apparent that the Office for Technical and Financial Cooperation will have to be strengthened. The Dutch are assisting the GOUV to build adequate office space for the Ministry of Plan, but the donor community should explore means of reinforcing the aid coordination capability of the Ministry beyond the provision of bricks and mortar.

II. Strategy

A. Objectives

Upper Volta has expressed its long-term objectives to be food self-sufficiency, reduction of underemployment, and satisfaction of the basic needs of all Voltaics, including access to water, to health

and to education. The Mission has quantified these objectives in order to discuss the means necessary to fulfill them. All figures cited below represent Mission interpretations of GOUV statements on long-term objectives.

	1976	1986	1996	2006
Primary school attendance (% of age group)	14	45	90	100
Secondary school attendance (% of age group)	2	15	45	65
Access to potable water (% of population)	25	50	85	100
Coverage of rural health delivery service (% of population)	n.a.	35	70	100
Food Crop Production (thousands of metric tons)	982	1326	1790	2200
Kilograms per Capita	158	170	188	200
Meat production (thousands of metric tons)	52	100	194	377
Kilograms per capita	8	13	20	34
(% of recommended diet) 1/	(15)	(25)	(38)	(65)

We have extrapolated from GOUV goal statements the following targets for economic growth, population growth, life expectancy and infant mortality. These represent Mission interpretations of the implications of the GOUV objectives quantified above.

1/ exports reduce availability of meat for domestic consumption.

	1976	1986	1996	2006
Gross Domestic Product at 7.7% per year (millions of dollars)	671	1449	3130	6760
Agriculture, forestry, and Livestock	232	383	601	897
Industry and services	242	658	1618	3980
Commerce	149	300	604	1217
Government	48	108	307	666
Population (millions)	6.2	7.8	9.5	11.0
GDP per capita (dollars)	108	186	329	615
Birth rate (per thousand)	49	40	31	24
Death rate (per thousand)	25	20	16	14
Life expectancy (years)	38	47	58	72
Infant mortality (per thousand)	182	100	50	20

The above figures are very useful in two senses. First, this data together with the analysis in Section I displays graphically that what needs to be done in terms of economic development is virtually infinite. Second, these figures provide useful targets against which to measure--at least broadly--the development performance of the GOUV, AID and the donor community.

U.S. development objectives support certain of the GOUV objectives. Our basic goals are:

1) To increase agricultural productivity in order to increase availability of food and to release resources for other sectors of the economy.

2) To help meet the basic needs of the rural population for potable water, health services, education and environmental protection.

Since the problems (and therefore opportunities) for development

in Upper Volta are unlimited, even funds as projected in the PAPLs of Section III would require a development strategy based upon selectivity among priorities. On the basis of the historical record of funding below projected levels our realistic judgement is that funding will in all probability be significantly lower than the figures projected in the PAPLs. In these circumstances the key to our development strategy is the establishment of priorities which provide for a phased implementation of projects depending on the level of resources available.

Our priorities are:

-- First priority is food production and related activities. Food self-sufficiency is the foremost priority of the GOUV, the Club du Sahel/CILSS, and the basis on which the Sahel program was supported in Congress. This is a field in which American expertise can very effectively be brought to bear. Here we include activities in the agriculture sector, integrated rural development and rural development support categories, described on p.52, in Section III, Assistance Planning Level.

-- Second priority will be given to potable water, health, and rural primary education. The GOUV is currently prepared to initiate a major rural potable water program, and we will begin assistance in this field in FY 1979. As noted in the Indicative Planning Level, we believe the GOUV will be in a better position to implement U.S. assisted programs in health and rural primary education later in the planning period.

The Ministry of Health has proposed through the CILSS a fundamentally sound project for a rural health care delivery system. This Ministry is, however, currently weak in implementation capability. The Ministry of Education is somewhat stronger in implementation capability, but has not yet resolved policy issues on rural primary education reform, a necessary prerequisite to effective utilization of assistance. On

balance, it appears the GOUV will be ready to move in health earlier than rural primary education. This will be subject to further review in next year's CDSS.

Depending on the degree to which funding were to be reduced, the USAID would adjust its programs by reducing funding for lower priority activities; delaying new starts in lower priority categories; not participating in some lower priorities.

B. AID Assistance Strategy

In developing AID strategy the Mission has followed closely the sectoral strategies developed by the Club du Sahel/CILSS working groups and has designed implementing projects from among those contained in the CILSS first generation proposals. 1/

B. 1. Food Production-Related Activities.

To date the Mission has focussed its food production-related activities on two different levels; that of the ORD or sub-ORD with an integrated rural development approach in discrete geographical areas of the country; and the national level, assisting activities such as agriculture technical education, seed research and multiplication and pest control, which will contribute nation/wide to agricultural production and will support regional, ORD-based integrated rural development efforts.

As funding levels increase, we plan to intensify and expand our integrated rural development activities in geographically discrete areas of the country. Increased funding levels permitting, as we move further into the planning period we contemplate moving at the national level towards an agriculture sector approach. While we would not address

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1/ The 1978 Upper Volta CDSS contains an annex detailing the relationships between the USAID program and the Club du Sahel/CILSS strategies.

every aspect of agriculture development (there will never be sufficient funding for this), we would weave our proposed support at this level into a more coherent and mutually supportive whole, rather than continuing piecemeal with a series of single problem oriented projects.

In the Eastern ORD, we are assisting the GOUV to attain food self-sufficiency through improvement of agricultural inputs and techniques employed in farming systems and support to a wide variety of production-related activities. The key objective is to increase production of food crops in the Eastern ORD by 5% annually through 1986. Achievement of this goal will increase per capita availability of basic grains by 5.7 kilograms nationally. Similar activities in the Volta River Valleys freed of onchocerciasis will also increase food output, but it is not yet possible to quantify the positive impact on production which can be expected there.

Out experience with integrated rural development is drawn upon to extend our interventions into the Seguenega region of the Yatenga ORD through Africare and, in the future, to the Sebba region of the Sahel ORD adjoining the Eastern ORD. This represents an effort to increase the equity of national rural development since these are among the most neglected and poorest ORD's. Primary focus in each case is on activities with the greatest potential productivity increases: food grain and livestock in the Eastern ORD, livestock in the Sahel, and diversified agriculture in Seguenega.

To respond to the inadequacy of the traditional diet, interventions are planned to increase the production of meat in the Eastern ORD and in a contiguous area of the Sahel ORD. If we move to an agriculture sectoral approach at the national level, more broadly based assistance in livestock will be considered. It is too early to quantify livestock

production goals, but the basis is being laid for expanded activity in this sector by experience with mixed farming in the Eastern ORD and with range control in the village livestock project. As part of such integrated rural development projects, there will be small-scale water impoundment and partial control of water flows in low areas (bas-fonds). However, the Mission believes that sophisticated water control systems for irrigated agriculture demand too much skilled personnel to be effectively implemented on a large scale in Upper Volta at this stage of development. In any case, other donors are considering development of wheat and rice farming through irrigation and the construction of dams. Planning in this area is currently not far enough along to merit our participation.

Increasing food output in the Eastern ORD and other areas will not be profitable for the farmer unless the marketing system for food grains is improved. Consequently, the AID strategy envisions a series of activities at the national and ORD levels designed to reduce marketing costs and improve the functioning of cereals markets in order to increase effective demand for food grains at the farm-gate. The GOUV has raised producer prices as an incentive to increase agricultural output and has established a plan for rural storage to increase availability of grain in rural areas. Working with the National Cereals Office (OFNACER), AID will help strengthen the storage system at national, village and farm level to improve the functioning of the grain market. As another essential element of this program AID will assist OFNACER in the development of a reserve stock to be used as a grain market price stabilizing mechanism to balance the extreme swings in both producer and consumer prices occuring throughout the year. For this AID will work with OFNACER in the development of a Title III stabilization program which

the GOUV has already requested or, if sufficient Title III commodities are not available, a Title II program will be utilized for the same purpose. To complement this strategy, farm-to-market roads will be upgraded and the capacity to maintain them will be strengthened.

The development of industry is a necessary corollary to the development of agriculture in the absence of an important export crop. In this field AID will pursue its small farmer oriented policy by concentrating on the promotion of rural enterprise for processing farm products and for supplying necessary farm requirements in the Eastern ORD and other areas.

B. 2. Human Resources/Basic Needs

The second aspect of the Mission strategy is to help meet the basic human needs of the rural population. This involves interventions in rural water, health, education, and the environment. These are new areas of involvement for the Mission, but the problems in these areas constitute major bottlenecks to development of agriculture and industry.

The poor health of the rural population and high level of illiteracy are a drag on development and there are effective approaches which can be adopted to alter this situation. In health, there is an opportunity to apply experience in other Sahelian countries in helping to establish an effective national rural health delivery system. The new GOUV request to the CILSS for assistance in this area is sufficiently all-encompassing to require multi-donor financing. The proposal approaches the ideal model for direct villager participation in primary health care backed by higher-level care centers to handle difficult cases. The emphasis is on preventive medecine and upgrading of villagers' skills to handle routine health care problems.

Elsewhere in the world, mortality rates have been cut significantly by low-cost public health measures at low levels of general economic development. Improvement of the quality of rural life through improved health is possible for relatively low expenditures per capita. Essential to the success of any such expanded rural health delivery system is improved public health administration and training capabilities. Here too the Mission plans to offer assistance.

In addition to provision of preventive and basic curative health services, a major advance in rural health can be obtained simply through provision of adequate amounts of easily accessible potable water. With such provision, a major drop in the incidence of water-borne diseases, which are widespread in Upper Volta, can be anticipated. There is another important quality of life implication as well: with easily accessible potable water, the substantial time that rural women must often devote now to obtaining inadequate amounts of polluted water will be freed for other economically or socially beneficial activities. The Mission plans assistance in this area through at least the time horizon of this document.

In education, through a project managed by Catholic Relief Services, AID will support an experiment with primary school curriculum reform. It is our intention in the latter part of the planning period to build upon this pilot project and other projects financed by the FED and the World Bank to assist the GOUV to carry out a national reform and expansion of the rural primary school system. The adaptation of the national school system to the development needs of an agrarian society and its expansion to serve a large proportion of the rural population dramatically expand our current strategy for providing practical training in

agriculture to extension agents and to women's groups. Since the school system produces many semi-literate dropouts, it is important that the education they receive while in school help them improve their methods of farming, the composition of their diets, and their knowledge of sanitation and health practices. It is also important that the drop-out rate, which makes rural primary education highly cost-inefficient, be reduced. This can be accomplished by developing curricula more relevant to rural life.

Another area where the AID program has helped meet a growing need is that of strengthening of women's roles in development. Too often neglected by the predominantly male extension agents, rural women represent a traditionally vital agricultural resource which two USAID projects are strengthening. Training in small-scale, village level productive or labor-saving enterprises, furnishing of credit to initiate such enterprises and teaching of functional literacy as a key to expansion of development opportunities form the essence of these specialized projects. It is, however, the long-range Mission goal to work with the GOUV to integrate rural women into the general development process so that projects primarily focused on women will no longer be necessary.

Per capita consumption of firewood in Upper Volta is second only to the Gambia among Sahelian countries. Wood for sale is piled at the roadside of every major road to Ouagadougou for a hundred kilometers in all directions. This is both an indication of the profitability of selling firewood and the pressure on the natural resource. As the population grows, the pressure will increase and the potential for irreversible environmental degradation will grow. To attack this problem the Mission is currently following a strategy of training personnel needed for projects to expand village reforestation and increase the supply

of firewood. This training also applies principles of sylvo-pastoral management. The agents thus trained will be true ecology agents, concerned with protection of the whole exosystem. They will play key roles in the implementation of the GOUV program to protect the environment. As our experience in ecology training increases, our understanding of the problems of land degradation and deforestation, we intend to seek further opportunities for constructive assistance in this important area.

The Mission is also exploring the feasibility of using alternative energy resources to reduce reliance on firewood and conventional energy resources. If reliable, economical substitutes for firewood or more energy-efficient ways of using firewood can be found, the growing pressure on forests can be slowed. We plan continued experimentation with uses of solar energy and initiation of bio-gas experiments to demonstrate their potential in Upper Volta.

One of the key elements in the development process which has received scant attention from the GOUV is population growth. While a nationwide census was carried out in 1975, analysis has not proceeded very far. Thus GOUV awareness of growth-related problems remains inadequate. The plan simply calls for a better distribution of the population, referring to new lands settlement and migration off the central Mossi plateau to more sparsely settled regions in the East and West. The only other GOUV population policy, is the promotion of maternal and child health, including better birth spacing to protect infant health. The Mission will continue to stress its view of the importance of reducing population growth rates to relieve pressure on the environment. At the same time, through our health strategy, we will assist the GOUV in achieving reductions in infant mortality, a prerequisite for achieving

permanent reductions in fertility and ultimately a slower rate of population growth. We will also seek opportunities through our assistance in the development of a rural health care delivery system to introduce family planning concepts and basic family planning services for the rural population.

In response to nutritional deficiencies which are particularly important in pre-school and young school-age children AID continues to provide PL 480 Title II food for the nutrition and feeding program of Catholic Relief Services (CRS) and for distributions in food deficit areas through CRS and the National Cereals Office (OFNACER). School feeding also provides some incentive to rural families to release their children from work in the fields to attend school and thus is also supportive of rural education. Aggregate nutritional deficiencies may be particularly severe in certain localities due to spatial variation in rainfall patterns. Thus, in addition to a regular program to raise nutritional standards for young children, AID will support in appropriate years emergency programs through CRS and other voluntary organizations to respond to localized food deficit conditions. The Mission intends to continue support to the CRS regular program at suitable levels as long as the monitoring of child growth indicates that nutrition standards remain inadequate and until improved marketing and increased food production render external food aid unnecessary.

PL 480

Metric Tons	1977	1978	1979
CRS Regular Program	4,335	8,112	14,138
CRS Emergency Program	5,943	18,847	- 1/
OFNACER	9,722	-	12,000 (proposed)
TOTAL	20,000	26,959	26,138

1/ By their nature, one cannot forecast future year emergency program requirements.

In implementing its programs, the Mission plans to continue to make full use of U.S. private voluntary agencies in Upper Volta. CRS is active in maternal and child health, nutrition and primary school curriculum reform. Africare is carrying out a complex integrated rural development project in the Yatenga ORD. Both CRS and Africare participate in discussions of the Mission's general development strategy. Important AID-supported development projects are also being implemented by Partnership for Productivity and Save the Children Federation.

The Peace Corps is routinely consulted at the project identification stage and areas of cooperation are continuously sought. The Mission will continue to benefit by the use of Peace Corps volunteers in AID projects.

Other important complements to the AID bilateral program are provided by AID support to regional projects and organizations. Multi-donor regional projects like SAFGRAD, Integrated Pest Management, Remote Sensing, Savannah Water Resources, Entente Livestock II and Entente African Enterprises bear directly on Upper Volta's development and are important elements of AID's program in the country. Similarly, our support to such regional organizations as CILSS, CIEH, ELC, the Entente Fund, and, potentially, to CEAO provide welcome resources for strengthening West African regional cooperation and the strengthened economies that can foster.

The Mission strategy described here has serious recurrent costs implications. At present we do not have the full range of information needed to assess accurately the income generating potential of all AID projects or to assess fully the recurrent costs involved in these activities. We plan to improve this analysis of recurrent costs as the Harvard-Montreal-OECD study progresses. Analysis will also be begun on

the expected long-term consequences of AID's sectoral activities. However, very rough estimates based on our proposed strategy indicate that we will add at least $17 million to GDP by 1986, while increasing GOUV annual recurrent costs by almost $4 million. Capturing this share of the increased national income would require a marginal tax rate of 24% which exceeds the average rate of taxation by half again. The situation could be very much worse than this estimate indicates; improving educational levels and health conditions for long-term growth will make the recurrent cost problem much more burdensome than at present. Donors will increasingly have to fund recurrent costs through the medium term, until the long-term effects of improved health, education and infrastructure improvement come to full fruition. This troublesome situation has particular implication for the balance between equity and growth, with equity programs tending to increase and growth decrease recurrent costs. As a part of this pattern other donor programs must be considered.

Other donors are more involved that we in cash crop production, industrial development and major infrastructure expansion, although they also participate in food crop production and activities directed towards meeting basic human needs. For this reason their contributions to income generation and recurrent costs are and will continue to be greater than those of the AID program. However, now that the E.ORD basic infrastructure has been established, the Mission is moving agressively into production-oriented activities there. Over the planning period we intend to expand further in size and scope our support for food production and related activities. Nevertheless, a very major element of the AID program will continue to focus on equity-oriented programs of basic human needs and the consequent higher recurrent costs.

III. Assistance Planning Level

Proposed Assistance Planning Levels

	FISCAL YEARS (millions of dollars)					
	1981	1982	1983	1984	1985	TOTAL
Food Production - Related Activities						
Agriculture Sector	3.6	1.9	5.5	7.4	10.5	28.9
Integrated Rural Devl.	3.1	5.3	6.6	7.4	7.5	29.9
Rural Devl. Support	3.0	3.4	3.7	4.0	5.2	19.3
Sub-Total	9.7	10.6	15.8	18.8	23.2	78.1
Human Resources/Basic Human Needs						
Primary Educ. Sector	—	—	—	4.0	6.0	10.0
Health	—	2.2	4.7	7.0	9.5	23.4
Water	3.2	4.0	3.7	1.4	2.8	15.1
Environment	1.2	.6	3.8	8.0	10.5	24.1
Sub-Total	4.4	6.8	12.2	20.4	28.8	72.6
TOTAL	14.1	17.4	28.0	39.2	52.0	150.7
PL 480 food requirements (metric tons)						
CRS Regular Program	12,500	13,100	13,800	14,500	15,200	69,100
OFNACER Reserve Prog.	12,000 1/	—	—	—	—	12,000
Emergency Program	(as required)					
Value (millions of dollars)	8.9	5.6	5.9	6.2	6.5	33.2

The Indicative Planning Level (IPL) for FY 1985, to be reached by the Proposed Assistance Planning Levels (PAPLs) indicated in the table above, provides sufficient resources for substantial assistance

1/ last year of food reserve stock contributions.

in all areas of concern outlined in the strategy.

The agriculture sector category includes current and proposed assistance at the national level in training of agricultural technical personnel and in improving grain marketing and storage. By FY 1983 we expect to have a sufficient data and analytical base to be able to consider moving into a broader sectoral approach in agriculture, including, inter alia, strengthening the planning and implementation capability of the Ministry of Rural Development, agriculture credit, livestock, development of improved production packages (combination of better techniques, implements and seeds) for food and cash crops, and continued activity in agriculture technical training and grain marketing/storage. We believe such an approach desirable to allow the GOUV to support increasing activities in the ORD's (such as our integrated rural development activities) and to use effectively increased donor flows to the rural areas. Increasing funding levels reflect this perception.

The GOUV's capability to implement sub-regional IRD projects has grown and should continue. Additionally, the GOUV intends to move more strongly towards a sub-regional, ORD-based development strategy in the post 1981 period. Increasing investment in this type of activity, therefore, appears warranted.

The rural development support category includes activities supportive of agriculture production but not directly agricultural in nature. These include farm-to-market roads, appropriate technology, (improved agricultural implements and simple food processing equipment), and programs providing credit and training for small rural enterprises. Toward the latter part of the planning period we plan a substantial

increase in support to agriculture-related rural private enterprise, based on the solid base of experience begun in FY 1978.

By FY 1984 we anticipate sufficient experience in rural primary education reform, based on AID-supported, CRS-GOUV pilot activities in the Tenkodogo area, to merit significant investments in the rural primary education sector, including support for expansion of the system, curriculum reform, improved teacher selection and training, and enhanced planning and management capacity for the Ministry of Education.

In health, the GOUV has proposed through the CILSS a comprehensive health program, including a major expansion and improvement of the rural health delivery system, training facilities to produce the personnel to staff it, and substantial upgrading of the Ministry of Health's capability to manage it. This is an ambitious and expensive undertaking currently estimated in excess of $100 million. The PAPLs for health in the table above will allow the U.S. to play a significant and influential but not predominant role in launching this important effort.

The PAPLs for water will allow the U.S. to participate in provision of potable, easily accessible water for the rural population in approximately one-third of the country, and to develop the GOUV capacity to maintain the wells and pumps once installed. This is a portion of a comprehensive nationwide program which will be supported by other donors in other sections of the country.

Under the rubric of environment, for the first two years of the planning period the Mission will be continuing support noted in the strategy for forestry education. Later in the period, based on this experience and advances in the state-of-the-art (in particular in alternate energy sources), we intend to move more broadly into

activities dealing with land degradation/deforestation and the wider dissemination of alternate energy sources, with emphasis on low-cost, locally produceable, small-scale systems.

Funding requirements over the planning period to continue currently approved projects are as follows: FY 1981: $4.261 million; FY 1982: $1.886 million; FY 1983: $0.956 million. No currently approved project requires funding beyond FY 1983.

Food aid to improve nutritional standards for pregnant women and pre-school and school-age children is expected to increase in the medium-term as CRS increases its MCH and school feeding programs. 1981 is expected to be the final year of a 36,000 ton program to increase OFNACER's cereal stabilization stocks. After 1981, future emergency situations could require replenishment of depleted security stocks, but it is impossible to predict such events. Over the long-term, PL 480 programs can be phased out as local production increases and nutrition standards are met without recourse to food aid. The Mission believes, however, that this may require a considerable period of development before Voltaic agriculture and distribution systems will become sufficiently advanced to warrant termination of food aid.

If funding and activities grow toward the IPL, staffing must increase. In order to minimize this increase, we are restructuring our implementation offices, moving from recruiting project managers for specific projects to the concept of offices with responsibility for certain spheres of activities, staffed with a mix of technical skills and general development officers appropriate to those responsibilities. Every project within the purview of an office will have an officially designated project manager, but while a single officer

may be designated manager for several projects, participation in the management of a project may come from several officers with appropriate technical skills. Specific assignments of duties within an office will be adjusted among the staff by the office director based on changing workload requirements and staffing fluctuations.

We have already moved partially in this direction. As we have many more projects than project managers, projects in addition to the one they were recruited for have been added as ancillary duties for most officers. Lacking a formal base, however, this has been an uneven process, leaving some officers with heavier workloads than others. Also, recruitment on the basis of managers for specific projects has understressed the requirement for the mix of technical skills necessary to plan and implement the array of current and prospective projects in any given sector.

The process needs to be formalized, so that it is clear that individual officers will be working in a certain field of endeavour but that their specific duties will vary depending on the needs of the office; and so that we may focus on recruiting the mix of skills needed to carry out the overall program, rather than individuals suited only to a particular project.

With this restructuring we currently estimate that we can move from the FY 1979 OYB level of $6.164 million to the FY 1985 IPL of $52 million with the addition of twelve direct hire positions over those currently MODE-cleared, an increase of less than 50%. Two additional AID officers for detail to the JAO will also be required. Socially innovative activities tend to be personnel intensive, so we foresee a continuation of the trend towards increased reliance on contractor personnel, particularly institutional contracts such as those we now

have with CID and SECID. We propose to rely heavily on collaborative contracting for project design assistance.