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Country Development Strategy Statement

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JORDAN

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FY 1988 COUNTRY DEVELOPMENT STRATEGY STATMENT
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AMBASSADOR'S ENDORSEMENT

Jordan's strategic location and pro-western political orientation makes the survival of the Kingdom of utmost importance to the United States in achieving its foreign policy objectives in the Region. Jordan must continue to play a pivotal role in any negotiated resolution of the Israeli-Arab conflict that is to be both equitable and lasting. Although there has not been a dramatic breakthrough in the peace process during the past year, there has been solid forward movement towards the U.S. foreign policy goal of opening direct negotiations between Jordan and Israel.

Jordan's long-term growth prospects have been sharply reduced by economic decline in oil-producing states which will accelerate the five year slide in the Country's two main resources of foreign exchange and public sector investment funds -- remittances from Jordanian workers in the Gulf and Arab aid. Jordan thus faces a dramatic need for structural adjustment in its economy if the Kingdom's basic stability and economic health is to be maintained.

The U.S. economic assistance program is a critical catalyst in helping Jordan to make the structural adjustments necessary to provide greater incentives for growth in the private sector -- its new frontier -- and thus to promote the economic and political stability of Jordan under its new harsh realities.

For nearly 34 years, the primary focus of our economic aid efforts has been on helping to build the Kingdom's physical and human infrastructure which have fostered Jordan's remarkable, long-term economic and social growth. It is now time for a major shift in our economic assistance strategy in Jordan away from large, capital-intensive public infrastructure building projects towards activities that will help the Government to restructure its economy to provide greater incentives and resources for private sector investment and domestic job creation.

The Administration and the Congress have approved a substantial level of economic assistance for Jordan. USAID/Amman will continue to work closely with the GOJ to assure that these funds are fully utilized for the continued economic development of Jordan. The USAID has carefully analyzed the major constraints at work on the Jordanian economy and outlined a series of sector strategies that should go far to help Jordan regain the vitality and vigor it has before this fairly recent period of stagnation.

I support the conclusions of USAID's analysis and the program choices they propose and feel that the program will continue to demonstrate in a highly visible, tangible way, U.S. support for Jordan's pursuit of an illusive peace in this troubled Region.

Paul H. Boeker
Ambassador

MISSION DIRECTOR'S STATEMENT

This document was prepared by the committed and outstanding men and women of USAID/Amman, Americans and Jordanians, who in the past ten weeks, have professionally grappled with new realities, changed perspectives, different approaches and "unthinkable" thoughts. They have given of themselves and their talents through long nights and on weekends when they might have enjoyed their lives, their families and friends.

It is one of the pleasures of being a Mission Director to thank them for their efforts and to dedicate this work to them.

Lew Reade

Lew Reade

"My friend, I have not had time to write you a short letter, so I have written you a long one, n'est-ce pas?"

Decartes

I. EXECUTIVE SUMMARY

Jordan's rapid economic growth in the 1970's and early 1980's was largely externally driven, dependent on high levels of remittances from the 30-40 percent of the total Jordanian workforce employed in the Gulf, Arab donor aid, exports of manufactures to Arab neighbors, and income from phosphate exports. These inflows sustained high levels of government investment expenditure and private investment in housing, with government and construction accounting for three-quarters of employment growth between 1975 and 1983. The decline in Gulf State oil export revenues which began in 1981 has accelerated, and the underpinnings for Jordanian growth have, as a consequence, been severely shaken.

The GOJ's Five-Year Plan for 1986-1990 has in successive drafts become increasingly modest. The currently debated scenario targets GDP growth of 5 percent per annum, which given Jordan's high natural population growth rate of 3.4-3.7 percent, translates to per capita GDP growth of 1.5 percent or less. Even so, the government plan appears overly optimistic, projecting containment in import growth to less than 3 percent per annum, continuation of Arab donor aid and workers' remittances at current levels, and extensive new job creation in agriculture, construction and government.

The CDSS analysis indicates that continuation of balance of payments support will be required to enable Jordan to meet, at best, even its modest growth targets. Rapid labor force growth in Jordan, declining economic activity in the Gulf, and returning Jordanian workers should exert strong downward pressure on wage levels. This adjustment should serve to make Jordanian industry more competitive internationally and gradually make investment in new output more attractive. Unemployment has been forecast to increase substantially even under the Government's plan. Some observers have forecast unemployment higher than 20 percent by 1990.

The two most serious economic issues that will face Jordan in the near to intermediate term are rapidly increasing unemployment and balance of payments -- foreign exchange shortages. This USAID/Jordan CDSS strategy is designed to address as directly as possible these two economic problems. The centerpiece, and major change in this CDSS, is the strategy to work directly with private sector manufacturing and service industries to empower them to be the new engines of Jordan's income, employment and export growth. Over time, this will mean a significant restructuring of the economy toward the private sector. This restructuring is essential and will take advantage of the current and coming changes in relative capital-labor prices.

USAID plans to mount a number of distinct private sector initiatives but also to infuse the private sector objective throughout the program, sector by sector. The USAID strategy will proceed along two parallel tracks. The first track is the macroeconomic program with policy dialogue and balance of payments support, now channelled through a CIP, directed at shifting Jordan's overall economic policy setting toward one more conducive to a restructuring of the economy under which the private sector -- agriculture, manufacturing, and services -- would be the primary engines of growth and outlet for the growing labor force. The Amman-Dead Sea road project fits into the macroeconomic program not only as a key transportation linkage between the East and West Banks, but also as an important highly visible pump-priming of high priority to the Government, leveraging a refocusing of Jordan's economic priorities. The macroeconomic program focuses on (a) government policies affecting pricing (e.g. subsidies, exchange rates, tax structure) and the economy's resource allocations and (b) the broad context and role of government in the economy (e.g. public vs. private enterprises, of indirect credit allocation, and of interventions in agricultural produce marketing).

The second track, comprising sectoral policy dialogue and projects, is aimed at relieving constraints within the productive sectors (agriculture, manufacturing, and services) and in human resources, family planning/health and water. (N.B. In addition to the private sector emphasis, another major change in the CDSS is in the water sector. The concentration during the first part of the planning period will be on completing infrastructure projects underway and then on a new water resources project focused on economic efficiency and institution building in operation and manintenance.)

While the strategy agenda for change in the macroeconomic policy setting is a necessary agenda, it is not a sufficient condition for effecting needed economic restructuring and revitalization. The sectoral level interventions are critical to maximizing the potential for growth in the private productive sectors. They are designed to stimulate economic activity and to alleviate constraints within the targeted sectors. Following the framework set at the Administrator's November 1985 Senior Staff Retreat, USAID's areas of involvement have been divided into priority sectors and concerns. The priority sectors are: private sector (especially manufacturing and services), agriculture, human resources, health and population, and water/wastewater. Areas of concern include urban development and housing, science and

technology, natural resources and environment, energy, women in development, and PVO's. Strategy summaries for the priority sectors are:

Private Sector

At the policy level, private sector manufacturing and services industry development is constrained by restrictions to market entry posed by government licensing requirements and by the interplay of the exchange rate, taxes, tariffs, and import bans which not only tend to encourage import substitution over exports but may also tend to direct investment away from productive sectors altogether. Government ownership in productive sectors has led to inefficient investments and management problems. Furthermore, government ceilings on interest rates and government guaranteed loans for government sponsored companies inhibit capital mobilization for private industry. At the same time, Jordan's financial network is largely risk adverse, lending on collateral rather than on the basis of cash flows.

In terms of production of goods and services, Jordanian enterprises generally are short of management skills, frequently failing to develop well thought out business plans. Companies show little talent for original product design or adaptation, and educational institutions have no programs to develop such skills. Further, production is inefficient and of poor quality as modern systems of production planning, cost accounting, quality assurance, and plant maintenance are infrequently applied. Marketing is also a major problem area; traders, manufacturers, and service companies as well as government departments charged with export and foreign investment promotion are unskilled in market analysis, merchandizing, and promotion.

The impact of the above problems on private sector development is compounded by weak private sector business organizations, which are unable to represent business before government and which cannot well serve member needs for referral and technical assistance. In addition, public perception of the private sector is unfavorable, and public facilities and services used by business are not always adequate or efficient.

To address the above constraints, the principal elements of USAID's strategy are as follows:

a) Policy dialogue and technical assistance to support development of a policy framework conducive to private sector growth and privatization.

b) To improve financial intermediation, policy dialogue on interest rates, training in cash flow analysis, bond trading, risk analysis, development of venture capital operations, and improvement of financial accounting standards.

c) To increase production and cost efficiency and to improve quality and marketing of locally produced goods and services, creation of programs at local universities and community colleges in such fields as management and marketing, industrial engineering; establishment of productivity centers to assist manufacturers; initiation of programs for small entrepreneur training and finance; a separate intervention to assist development of services industries; and co-financing of market studies for firms and industries.

d) Technical assistance and seed capital to strengthen existing business organizations and create new ones, such as an exporters' association.

e) To counter negative perceptions of the private sector, support for formation of consumers' groups and United Way type charity appeals.

f) To increase efficiency of public sector services and facilities, CIP and counterpart generations will be targeted to alleviate high priority physical constraints.

Agriculture

USAID has in the past made major investments in the Jordan Valley which resulted in rapid expansion of fruit and vegetable production. Production in the Valley is now experiencing "second generation" problems. These include marketing problems stemming from overproduction of certain crops, lack of diversification, government regulation of and intervention in produce marketing, and inefficient handling, packaging, storage and food processing. In addition, yield growth is low due to poor and ill-informed practices in water scheduling and use, fertilizer application, and weed and pest control. To address these problems, USAID will extend its research and extension effort in the Valley. A new intitiative is planned in marketing which will emphasize government decontrol of produce marketing, better provision of market information, and private sector agribusiness.

The rainfed Highlands constitute an agricultural resource which has been unexploited. USAID's involvement in rainfed agriculture has just begun and modernization of this sub-sector is the focus of the research and extension building activities of the Highland Agriculture Development Project.

Human Resources Development

Labor force growth will likely exceed job growth by a ratio of two to one, and the output of Jordan's educational system will not match likely market demand. To address these problems, USAID's strategy is directed toward improving market clearing through assistance for establishing job counselling services in the educational system and improving collection and dissemination of information on wages and future occupational needs. A key element of the strategy is to mount a student loan program with CIP counterpart generations. Tuition fees may then be raised and university financing improved while students are compelled to bear a fuller proportion of costs in making higher education choices.

Since under the USAID strategy, private sector manufacturing and service industries are to be converted to primary engines of income, export, and employment growth, an important element of USAID's human resource strategy is to improve the capabilities of Jordanian higher education to meet private sector requirements. For this purpose, assistance to universities and community colleges is planned to develop new curricula and train faculty in such areas as industrial engineering, product design, electronics, cost accounting, marketing and merchandising. Lastly, to upgrade current skill levels in both the public and private sectors, USAID's participant training program will be continued, but with earmarks for private sector participants and priorities geared to the needs of economic restructuring.

Population/Health

The country's population growth rate remains high at 4 percent per annum, based on natural growth of between 3.4 - 3.7 percent yearly, plus immigration. Birth rates have remained surprisingly high (45/1000), coexisting with a low mortality rate and modern, urban conditions, factors that usually depress fertility. The Government has begun to abandon its neutral stand on population that, in effect, had reinforced the pronatalist tradition of the country. USAID's strategy is to support, through policy

dialogue, a more favorable Government policy towards family planning and to promote a decline in the crude birth rate by increasing national contraceptive prevalence from 26 percent (1983) to 35 percent by 1992. This approach differs from past strategies in that the major justification will be based on health rather than demographic rationales. USAID efforts will focus on increasing the availability of family planning services and information at: (1) the Ministry of Health's public sector network of hospital/clinics and MCH centers and (2) clinics of both the Family Planning Association and private M.D.'s. Social marketing of contraceptives by pharmacies will also be emphasized.

Health conditions in Jordan are comparatively good when judged against other developing countries. However, the Government recognizes that the infant mortality rate at 60-65/1000 and child/maternal morbidity are unacceptably high. Although sophisticated medical treatment is available, Jordan's underdeveloped primary health care system has yet to reach enough of the highest risk group -- mothers and children under five -- to prevent diarrheas, achieve universal immunization coverage, avoid excessive fertility and make pregnancies and deliveries safer. USAID's strategic objective will be to assist the Government to strengthen its primary health care program, with our help emphasizing child survival interventions on a selective basis -- oral rehydration therapy, measles and tetanus immunizations, birth spacing practices, pre and post natal care, and deliveries by trained personnel. USAID will implement this strategy by (1) assisting the development of more and better qualified health personnel, especially nurses and midwives, (2) promoting the expansion of preventive health education through public service messages in the mass media guided by a new centrally financed Communications in Health Program, and (3) encouraging private sector involvement in the provision of reasonable cost health services and products and encouraging the participation of private physicians in a comprehensive health insurance program.

Water/Wastewater

This sector has been one of heavy past involvement for USAID. For the current planning period, USAID's attention will be extensively directed to completing capital projects now underway. To meet future needs, USAID's

strategy focuses on improving the efficiency in the use of past investments by better operations and maintenance, encouraging conservation (including revisions in water pricing), and expanding knowledge of Jordan's ground and surface water resources.

In Summary

With full recognition that unemployment and balance of payments/foreign exchange represent the major challenges to the Jordanian economy; that structural adjustment towards greater private sector involvement in economic growth and equity is the key element in overcoming these challenges; that policy dialogue, at all levels, remains a powerful tool in effecting changes towards allowing the private sector to achieve these goals; and that discrete project interventions are necessary to assure that growth occurs, USAID/Amman believes it has created a pragmatic and workable, if ambitious, strategy for change and growth.

II. ANALYSIS

A. JORDAN'S RESOURCE ENDOWNMENTS AND PAST DEVELOPMENT STRATEGY

Jordan is a small country with nearly non-existent natural resources. Jordan's total land area of nearly 9.7 million hectares, only 10 percent is arable. Rainfall is low and highly variable, and water is scarce, limiting agricultural potential and heavy water-consuming industrial development. Jordan has no forests, nor known coal deposits; and with few water resources, extremely limited hydroelectric potential. Only small quantities of oil have been discovered. Jordan's oil shale deposits, which are possibly as large as 1 billion tons are far from commerciallly exploitable at today's production costs. Jordan is thus highly dependent on imported fuels. Jordan's only known significant mineral deposits are phosphates, and potash, and the country's abundant limestone.

The development constraints posed by Jordan's limited arable land and water resources and the country's lack of domestic energy sources have been made more binding by a high population growth rate, the product of both a high natural population growth rate, and large in-migrations following Arab-Israeli and Lebanese conflicts. Given the above circumstances, Jordan's fundamental development strategy has been to maximize the development potential of those few natural resource endownments possessed by the country. Jordan's economy has always been relatively open and reliant on imports for both food and energy. Much of Jordan's growth has been dependent on external earnings from exports, Arab donor aid, and workers' remittances.

By the mid-1960's, Jordan had made great strides towards economic self sufficiency, and U.S. assistance began phasing down. However, the 1967 War and the continuing strife that followed it for several years reversed much of Jordan's earlier economic progress. Some physical damage occured, and an additional 473,000 refugees poured into the Kingdom. Fighting interrupted agricultural production in the Jordan Valley and other normal economic activities elsewhere. Even more costly, in economic terms, was the loss to Jordan of the West Bank.

In 1972, U.S. economic assistance resumed at significant levels and continued to play a substantial role in Jordan's development until 1980 when once again U.S. aid levels were reduced sharply. Despite several major setbacks, Jordan's economic growth has continued dramatically for more than three decades. With the Kingdom's stable, progressive government, and substantial amounts of U.S. and other donor economic assistance, Jordan's economy has grown at about 7 percent per annum since the mid-1950's, a remarkable economic feat for any nation. This growth has been evidenced by:

* An increase of more than ten years in life expectancy;

* A doubling of agricultural production;

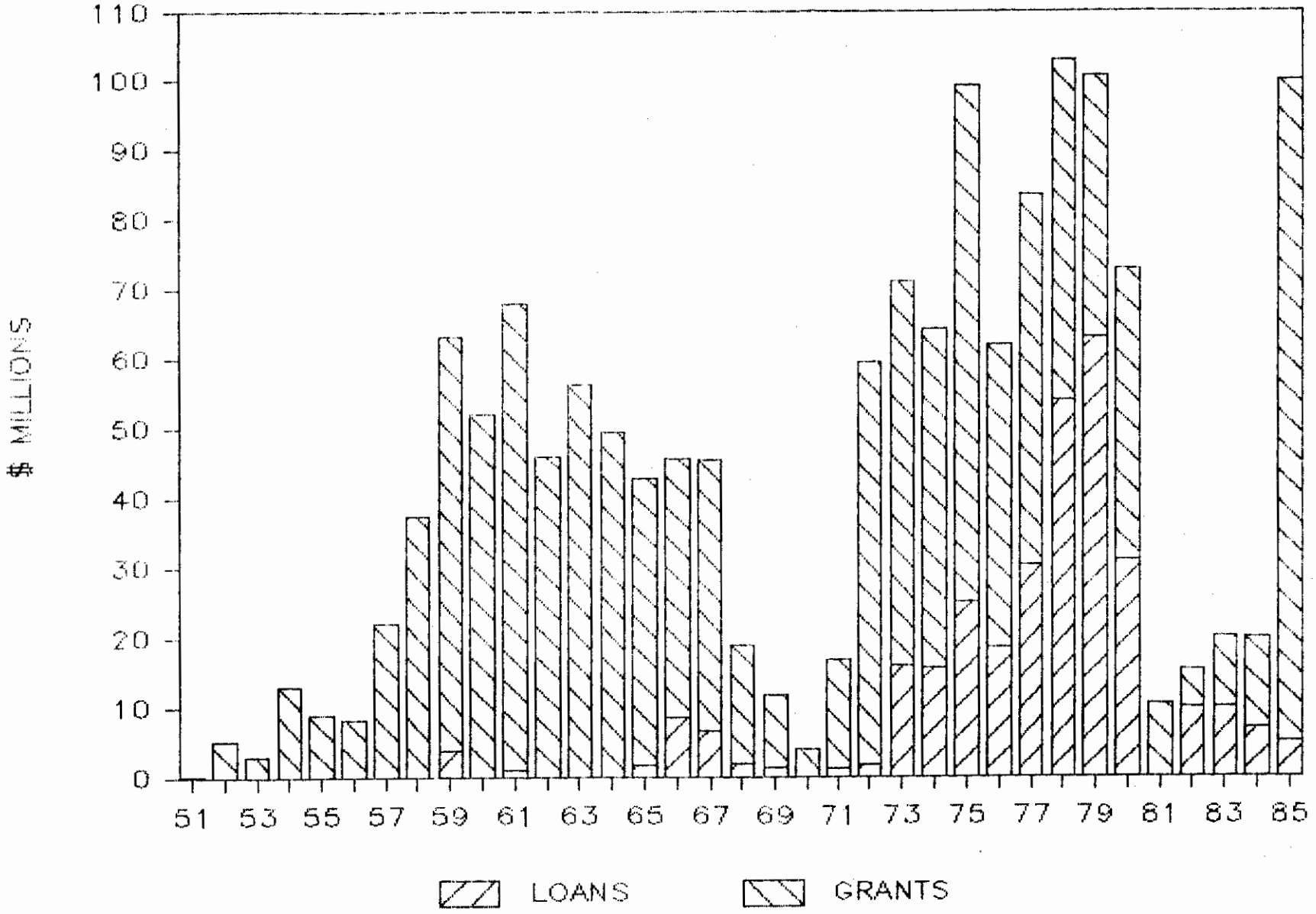
* A tenfold increase in manufacturing over Jordan's 1960 level; and

* A quadrupling of Jordan's schools and teachers.

U.S. economic assistance has played a significant role in Jordan's developmental process; A.I.D. and its predecessor agencies have provided approximately $1.6 billion in total economic assistance resources (including PL 480) to Jordan from FY 1952 to FY 1985. See chart of U.S. loans and grants on the following page.

TOTAL US ECON. ASSISTANCE TO JORDAN

US FISCAL YEARS – MILLION OF DOLLARS



Since 1952, the U.S. has helped to finance over 200 major development projects in the following major sectors of Jordan's economy:

WATER:

Over the years priority attention has been given to developing an adequate supply of water, (expanding its distribution for domestic, irrigation and on-farm use and for industrial purposes); collecting and treating wastewater; and conserving water for re-use. A.I.D.'s efforts in the water sector have, for example:

* Provided technical assistance in the investigation of Jordan's major groundwater resources in North Jordan and Rift Valley;

* Helped drill wells to exploit groundwater resources and to improve springs to prevent water waste;

* Contributed to the expansion of the wastewater collection system and construction of a new wastewater treatment facility in Aqaba;

* Aided in the development and expansion of water and wastewater systems in Amman;

* Improved the water distribution and wastewater collection systems in the City of Irbid;

* Helped in the initial planning for a major dam facility, the Maqarin Dam, to be built someday on the Yarmouk River if riparian issues between Israel, Jordan and Syria can be settled.

AGRICULTURE:

Another significant focus of A.I.D.'s efforts has been in agriculture. A.I.D. first concentrated its efforts on the Jordan Valley, the resource with the richest potential payoff. Significant amounts of U.S. technical and capital assistance have been provided to develop the infrastructure needed for the rapid growth of this fertile area. A.I.D., and several other donors in recent years, have undertaken a wide range of activities designed to bring some 36,000 hectares of the Valley under irrigated cultivation. Exports of fruit and vegetable production in the Valley have provided a measure of self-reliance in agriculture and filled most domestic consumption needs for fruits and vegetables. Despite extensive development in the Jordan Valley and growing irrigation in the Highlands, irrigated agriculture accounts for only 9 percent of arable land.

With rapidly rising population and growing per capita incomes, consumption of agricultural products rose at an average annual rate estimated at 15.5 percent between 1975 and 1983. Much of this higher consumption was reflected in increased imports of grains, including feedgrains for livestock and poultry. The increasing volume of food and feed grain imports led the USAID to devote attention to development of Jordan's neglected agricultural resource: the rainfed areas of the highlands which have the potential under improved technology packages to produce substantially more cereals, fodder, and crops of fruits and nuts.

In sum, the U.S. assistance has:

* Made a major contribution to the construction of such facilities as the East Ghor Main Canal, the Jordan Valley's irrigation lifeline;

* Financed an extension to the East Ghor Main Canal;

* Provided technical assistance and funding for the Zarqa Triangle Irrigation Project;

* Assisted the Ministry of Agriculture in improving its research and extension capabilities;

* Helped the Government to develop a wide range of government support facilities, schools, health clinics, cooperatives, roads, etc. which have substantially improved the basic life styles of the Valley's farming families; and

* Provided technical assistance to the Jordan Valley Farmers' Association to help in the development of this key credit and marketing association of Valley farmers.

POPULATION, HEALTH AND EDUCATION:

The Government's focus on development in these sectors has concentrated on providing services to those groups at highest risk. A.I.D. has helped by providing technical assistance to:

* Establish a health planning unit within the Ministry of Health;

* Expand the primary health coverage capability of the Ministry;

* Help the Ministry to develop a health education system;

* Estimate costs for a national health insurance program; and

* Expand Jordan's public school system through the secondary level and to develop several key facilities at the university level.

With few natural resources, Jordan's human resources have been its major economic strength. Jordanian skilled manpower has filled needs in the Gulf states, and remittances from workers there have provided some $1 billion annually, an income flow equivalent to roughly 20 percent of GNP. To help develop Jordan's key resource: manpower, the AID program has assisted through school construction, vocational and participant training programs, and institution building of Jordanian management institutions.

A.I.D. has also sent over 2,500 Jordanians to the United States, Europe or other countries in the area for training during the past 34 years. A measure of these training programs is the substantial number of A.I.D.-trained professionals who are working in key executive jobs within the Government and the private sector. Many of these executives have outperformed many of their countrymen in reaching key positions at relatively young ages.

In family planning; A.I.D. provides support to encourage Jordanian private voluntary organizations to pursue an effective population program designed to contribute to a lowering of Jordan's birth rate.

INDUSTRY:

A.I.D. has cooperated with the World Bank and other donors in developing Jordan's phosphate mining, potash and fertilizer production industries.

A.I.D. funds have financed the Arab Potash Company which is expected to be capable of producing 1.2 million tons of potash each year from Dead Sea brine. Jordan's exports from these major industries were valued at $350 million in 1984, accounting for more than half of the Kingdom's domestic exports.

URBAN DEVELOPMENT:

Jordan's large in-migrations, rapid natural population growth rate and the lack of agricultural resources capable of providing both rising employment and incomes to a rural population have resulted in the country's increasing urbanization. Between 1961 and 1979, the proportion of the population residing in urban places of 5,000 population or more increased by 40 percent from 50 percent to 70 percent. The population of Jordan's eleven municipalities with population of more than 20,000 grew at an annual rate of 5.4 percent over the same period, roughly one and a half times as much as the rate of population increase. Given this dramatic pace of urbanization and Jordan's scarcity of water resources, AID has been heavily involved in the water sector, with investments in both water supply and sewer services.

OTHER DEVELOPMENT ACTIVITY AREAS:

In recent years, A.I.D. has also provided some limited technical assistance to the Income Tax Department which was designed to improve and strengthen the Department's capability to increase domestic tax revenues.

A series of Technical Services and Feasibility Studies (TSFS) grants have also been provided to finance a wide range of studies and technical assistance activities in project design, special development problems, etc. These projects have provided the Government with a fast, ready way of tapping into American high technology to solve urgent development problems. For example, these projects have been used to:

* Analyze flash flood problems in Southern Jordan;

* Assess the training needs of the Amman Financial Market and identify where suitable training is available in the U.S.;

* Design and help establish a national microseismic network, the data from which will aid in development planning in a number of infrastructural areas; and

* Finance many other development-related, short-term technical consultancies between Jordanian and American experts.

B. DYNAMICS OF RECENT GROWTH

Despite the very substantial development efforts aimed at maximizing the income potential of Jordan's limited natural resources and considerable earnings from tourism, workers' remittances, and exports of light manufactures, (especially to bordering Iraq and the Arabian peninsula), Jordan was in the late 1970's and early 1980's heavily dependent on infusions of Arab donor aid to finance imports and investment. Indeed, remittances and the stimulus of expanding government expenditures, bolstered in large part by high levels of Arab donor aid, have, during recent years, been the chief sources of growth for the Jordanian economy.

Over the period 1980-1984, remittances have averaged 20 percent of GNP, Government consumption expenditures some 20 percent of GNP, and

Government infrastructure investment a further 16 percent of GNP. Government capital spending and the investment of remittances in housing spawned in turn an important construction industry. Government services and construction were, in turn, the chief sources of domestic job creation. As shown in the table below, construction and public administration (including defense) accounted for over 75 percent of total estimated employment growth of 154,000 between 1975 and 1983 and, over the same period, 29 percent of the growth in domestic value added.

Exports of manufactures and agricultural produce as well as the provision of trade and transportation services to neighboring countries, chiefly Iraq, have constituted a second source of growth to the Jordanian economy. Over the period 1980-1984, exports of goods and services averaged 38 percent of GNP. The sectors generating this export income (agriculture, mining, manufacturing, trade, transportation) made a far more important contribution to income growth, accounting for 55 percent of the increase in GDP between 1975 and 1983, than employment growth, 15 percent, in part reflecting the capital intensive nature of many of the investments made during the boom years.

C. ADJUSTMENT TO REDUCED EXTERNAL RESOURCES

With Jordan's economy closely linked to that of the region and growth so highly dependent on Arab donor aid, workers' remittances, and earnings from mineral exports, transit trade, and goods exports to Arab countries, Jordan was unusually subject to external developments beyond its control. The termination of the oil boom in the Gulf States has occasioned declines in Arab donor aid, a stabilization, if not decline, in workers' remittance inflows, and a dampening of demand for Jordanian exports.

1. Fiscal Policy

In the face of these adverse external developments, Jordan has generally managed through fiscal policy to reduce aggregate demand to levels consistent with (1) its external earnings and (2) reasonable levels of external borrowing. Nonetheless, Jordan's rising external indebtedness coupled with a sharp decline in foreign exchange reserves constrain future growth prospects.

In fiscal policy, Jordan has expanded domestic revenue collections and curtailed growth in overall government expenditures. Domestic revenue collections have increased at a rate faster than nominal GNP growth, and domestic revenues financed 85 percent of current expenditures in 1984 and 80 percent in 1985, as opposed to 67 percent in 1980. Growth in total Government expenditures was held to only 2 percent in 1983 and 3 percent in 1984. In 1985, a near doubling of Arab budget support from JD 106 million in 1984 to JD 195 million made possible a 12 percent rise in government expenditures, according to provisional actuals. As in the past, the bulk of Arab donor aid has financed investments in the Government's capital budget.

The increases in domestic revenue collection have derived from (a) improvements in administration of income and other direct taxes which now constitute some 20 percent of domestic revenue as compared to 15 percent five years ago, (b) higher non-tax revenue generations including charges from postal, telephone, telegraph services as well as profits from the Central Bank and government-owned company shares, and (c) continued growth in customs and excise taxes which constituted 39 percent of domestic revenue in 1985 vs. 36 percent in 1980. Higher income tax receipts largely reflect improved administration, a success achieved with the help of AID technical assistance.

SECTORAL ORIGIN OF EMPLOYMENT AND GDP, 1975-1983

	Employment (000's)					GDP (JD Millions, Current Prices)			
	1975	1983	INCREASE	PERCENT OF TOTAL INCREASE	SECTOR DISTRIBUTION OF EMPL. (1983)	GDP: VALUE ADDED 1975	1983	INCREASE	PERCENT OF TOTAL INCREASE
Agriculture	48.8	51.2	2.4	1.6%	10.1%	26	105.4	79.4	8.5%
Mining	2.6	4.6	2	1.3%	0.9%	16.3	37.9	21.6	2.3%
Manufacturing	33.8	51.2	17.4	11.3%	10.1%	39.7	176.6	136.9	14.7%
Electricity, Gas, Water	2.6	9.5	6.9	4.5%	1.9%	3.1	28.3	25.2	2.7%
Construction	29.9	76.9	47	30.5%	15.1%	19.2	126.8	107.6	11.5%
Trade	59.3	48	-11.3	-7.3%	9.4%	66.9	228	161.1	17.3%
Transportation	28.5	41.6	13.1	8.5%	8.2%	24.9	136.7	111.8	12.0%
Finance	7.2	10	2.8	1.8%	2.0%	30	113.4	83.4	8.9%
Public Admin. & Defense	121.6	191.6	70	45.5%	37.6%	65.2	232	166.8	17.9%
Other	21	24.4	3.4	2.2%	4.8%	11.8	50.9	39.1	4.2%
T O T A L	355.2	509.2	154	100.0%	100.0%	303.1	1236	932.9	100.0%

Source: Department of Statistics and World Bank

However, the income tax is not broad based, and most wage earners are exempt. As a result of the narrowness of the income tax's base and the continued reliance on taxes on imports for the bulk of domestic revenue, much domestic value added is not heavily taxed. Tax revenues comprised only 16 percent of GNP in 1984, although the inclusion of non-tax revenues brings this proportion to 22 percent.

2. Overall Growth

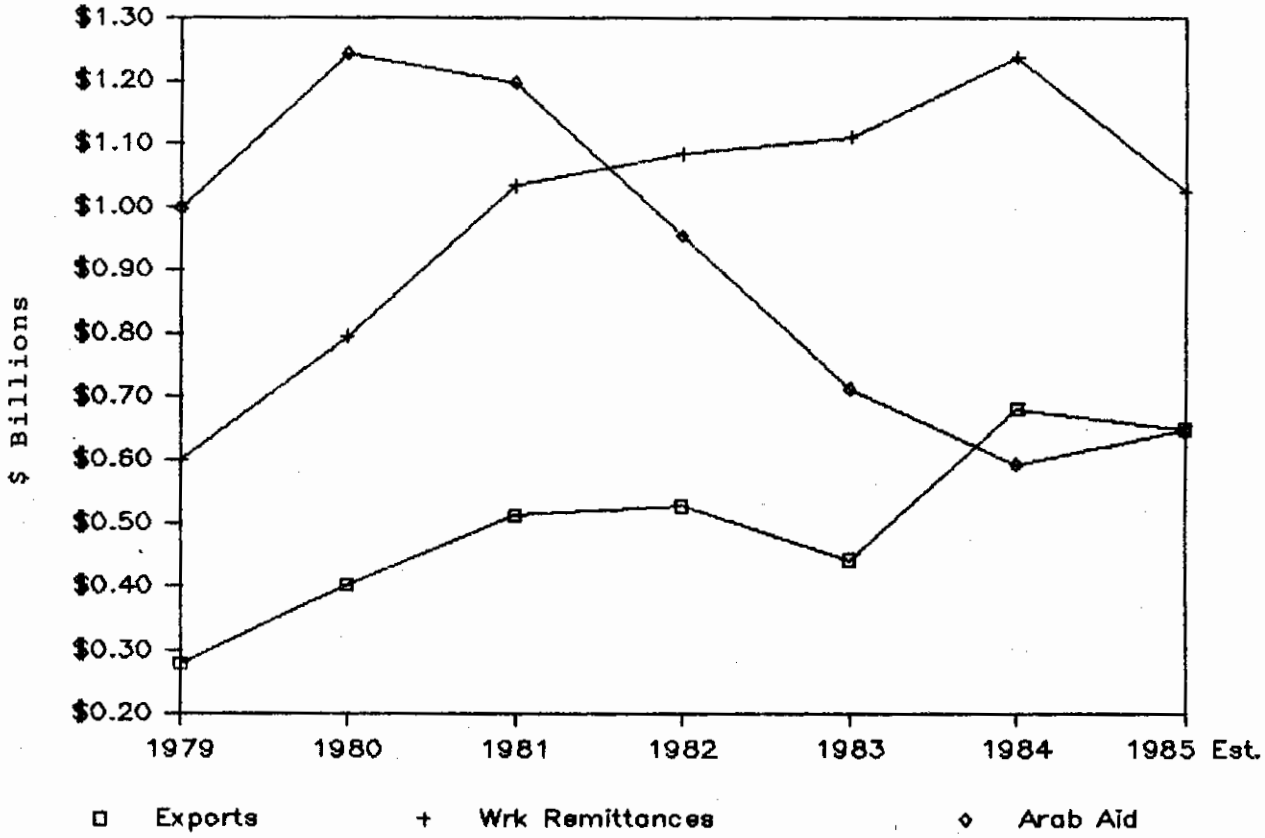
The slowing in Government expenditures made necessary by reduced Arab donor aid plus the stabilization in remittance flows reduced aggregate demand. As a result, GNP growth slowed from the double digit levels of the late 1970's to 1.2 percent in 1983, 1.9 percent in 1984, and a like rate in 1985. Given Jordan's high population growth rate, per capita GNP growth in the past three years has been negative.

3. Balance of Payments

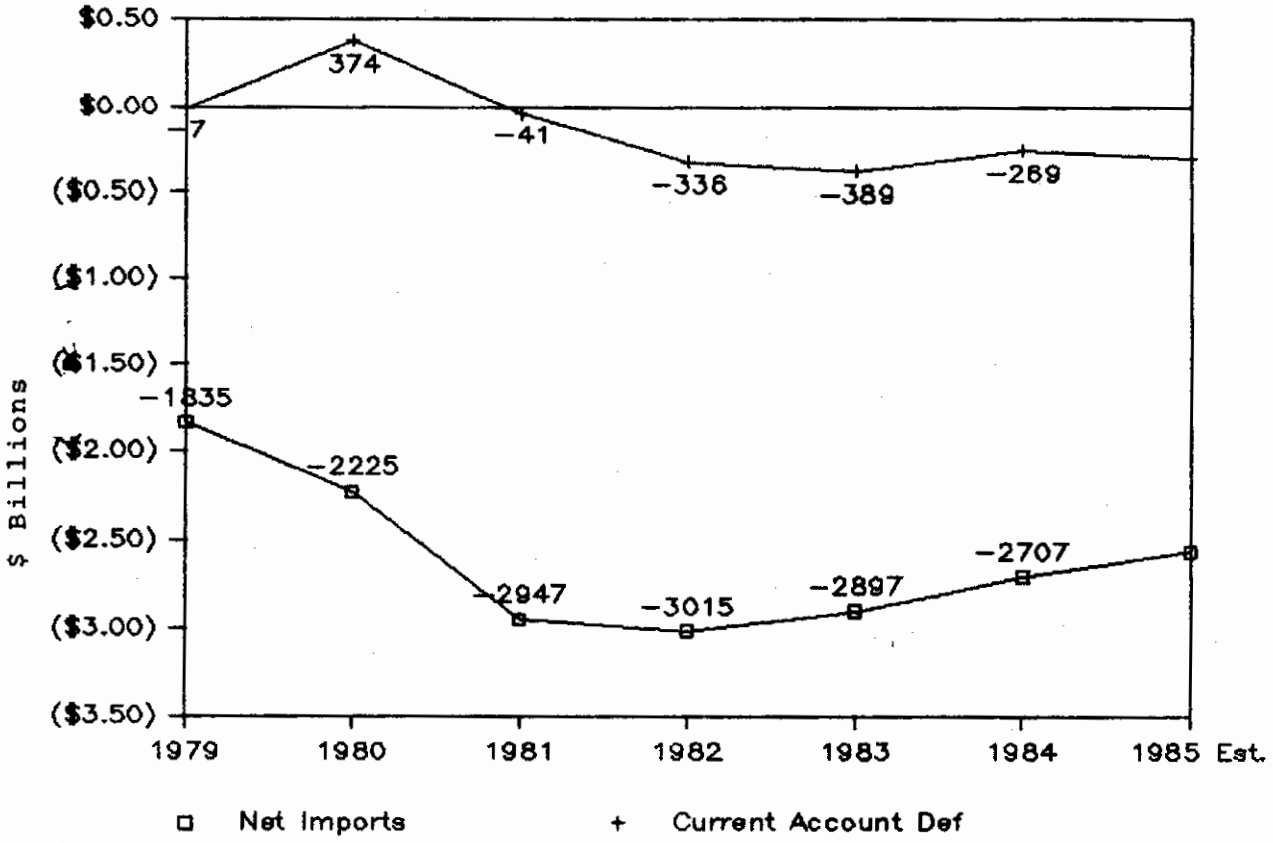
Lower growth has served to reduce imports, as shown in the graph below. From a peak of $3.0 billion in 1982, net merchandise imports (total imports less re-exports) have fallen by 10 percent to $2.7 billion in 1984 and an estimated $2.6 billion in 1985. On the other hand, payments for services (chiefly transportation and travel, student education abroad, and net investment income) have continued to grow from $0.7 billion in 1980 to nearly $1.0 billion in 1984 and 1985.

As shown on the graph on the following page, domestic exports have been volatile, rising from $400 million in 1980 to a plateau of just over $500 million in 1981 and 1982, falling back in 1983 to $440 million as a result of poorer phosphate earnings and sharp declines in exports to Iraq, rising steeply in 1984 to $680 million as a result of $100 million increase in phosphate and fertilizer sales as well as a $100 million increase in exports to Iraq, and stagnating in 1985. Reported workers' remittances stabilized between 1980 and 1983 at $1.0 - $1.1 billion, rose by 11 percent in 1984 to $1237 million, and, in 1985, fell by an estimated 13 percent to $1024 million. Tourism receipts from a peak of $550 million in 1981 have declined continually, falling in 1985 below the $450 million mark. Earnings from transportation and transit services have also suffered, declining by some $60 million from their 1981 peak of $390 million. Arab grant aid declined by more than half from over $1.2 billion in 1980 to just under $600 million in 1984. Bolstered by assistance from Oman, Arab grant aid is estimated to have increased to some $650 million in 1985 but is expected to fall in 1986. The net result of these developments has been a reversal in Jordan's current account position from a positive $374 million surplus in 1980 to deficits of $41 million in 1981, $336 million in 1982, and $389 million in 1983 (see graph). Thanks to continued declines in imports and, in 1984, a recovery in domestic exports, and, in 1985, higher Arab grant aid, the current account deficit was contained to $270 million in 1984 (representing 5.5 percent of GNP) and an estimated $300 million in 1985. Despite the improvement in the last two years in the current account, there remains a major structural imbalance in Jordan's external accounts; exports of domestic goods cover only 25 percent of Jordan's merchandise import bill (excluding re-exports).

Jordan Current Account Major Receipts



Jordan Imports, Current Deficit



4. Reserves and External Debt

To finance the current account deficits that have emerged since 1980, Jordan has drawn down on its reserves and expanded external borrowing. As shown on the graph on the following page, Jordan's total reserves (official reserves plus net commercial bank foreign assets) have decreased from $1538 million in 1980 to $740 million at the end of 1985. Reported public external debt has more than doubled from $1.2 billion at the end of 1980 to $2.9 billion at the end of 1985, equivalent to roughly half of GNP. Jordan's debt service ratio remains comparatively low, with reported principal and interest payments constituting in 1984 only 8.6 percent and in 1985 an estimated 12 percent of earnings from exports and workers' remittances and other services. However, reported debt excludes that contracted for military equipment and thus understates Jordan's external indebtedness. Moreover, the composition of Jordan's debt has changed, with commercial borrowings rising (36 percent at the end of 1985 vs. 17 percent at the end of 1980), as opposed to concessional loans from bilateral donors and international financial institutions. While Jordan's debt service ratio is relatively low, the shift toward commercial borrowings implies a lowering in the average maturity of Jordan's external debt as well as higher average interest payments. With continued declines in Arab donor grant assistance, Jordan can be expected to rely more heavily on foreign borrowing to finance its investment programs.

D. FACTORS AFFECTING THE MEDIUM-TERM OUTLOOK

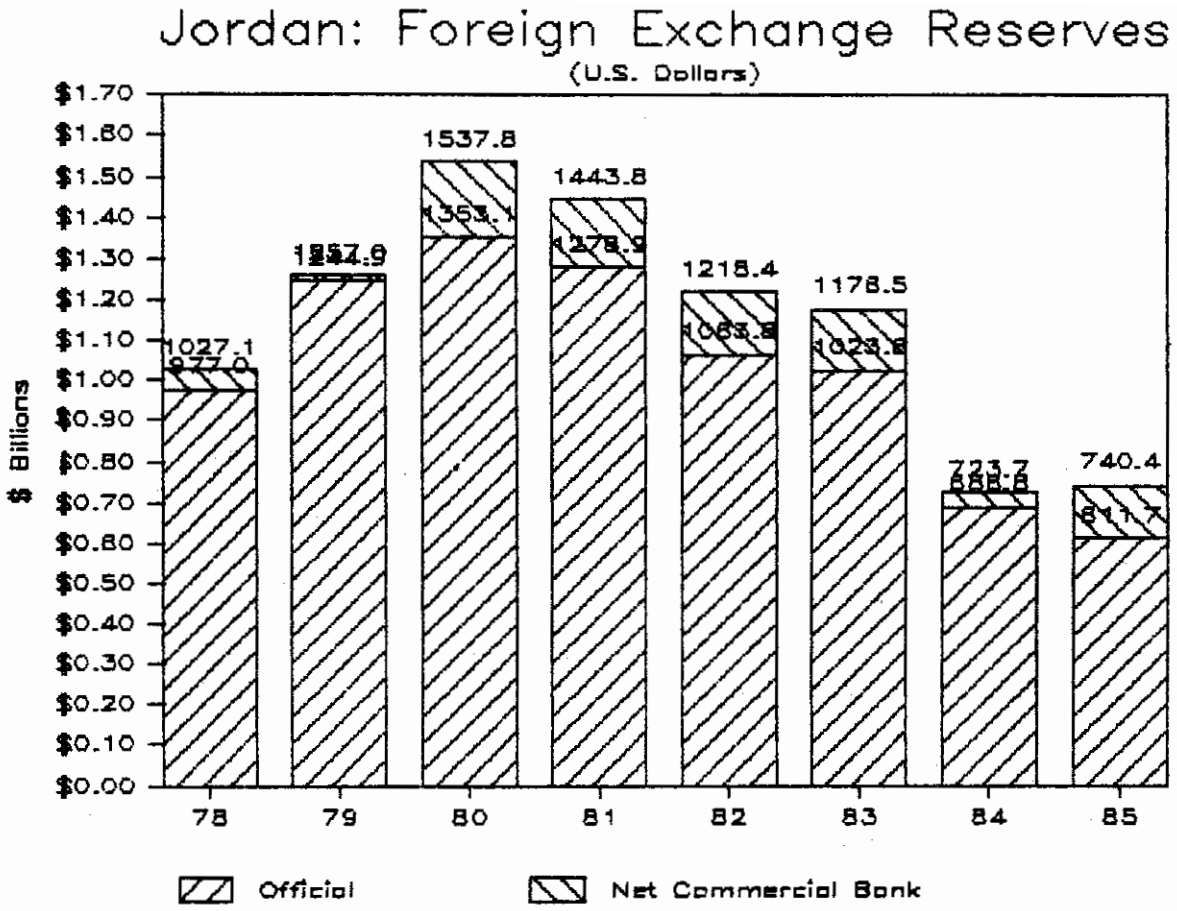
Over the medium-term, external developments affecting the Jordanian economy are likely to continue to be unfavorable. World oil prices are forecast by the World Bank to decline by 41 percent in constant 1984 dollars between 1985 and 1990, followed by a gradual rise thereafter to recover 82 percent of their 1985 price by 1995. For the Gulf States, to counteract the projected oil price decline and to maintain oil earnings at even their depressed 1985 level would require average annual volume increases of at least 11 percent, sales increases which at this point in time seem unlikely and which would, ceteris paribus, likely depress oil prices further. The reduction in the oil revenues of the Gulf States will impact Jordan by:

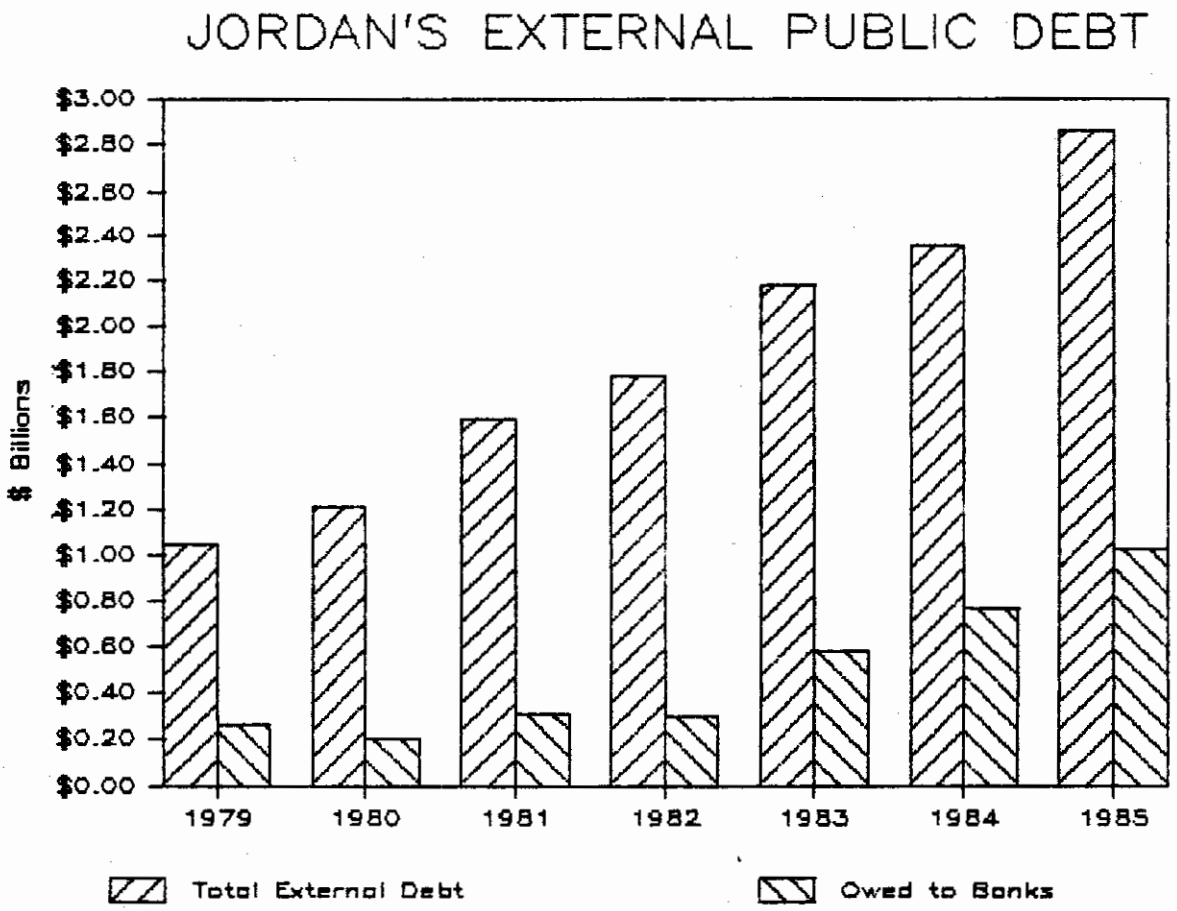
* depressing new job creation and wage levels in the Gulf States, thereby adversely affecting levels of workers remittances to Jordan. Jordan's Five Year Plan for 1986-1990 is preliminarily projecting that remittances will stagnate at 1985's level and that out-migration to the Gulf will average 5,000 persons annually which will be totally offset by a parallel inflow of 5,000 Jordanians returning from the Gulf.

* reducing the ability of the Gulf States to maintain, let alone increase, financial assistance to Jordan.

* contracting import demand in the Gulf States, thereby making increases in Jordanian exports to these countries more difficult to achieve. In 1984, the Gulf States accounted for 21 percent of Jordan's total domestic exports.

Continuation of the Iran-Iraq war is another external development that will have negative repercussions on Jordan's near-term outlook. Iraq has been an important, albeit volatile, outlet for Jordanian manufactures, accounting for 26 percent of total domestic exports in 1984, 16 percent in 1983, and 36 percent in 1982. As the war continues and oil prices decline, Iraq's financial position continues to worsen and its ability to pay for imports


Jordan: Foreign Exchange Reserves
(U.S. Dollars)
$ Billions
$1.70
$1.60
$1.50
$1.40
$1.30
$1.20
$1.10
$1.00
$0.90
$0.80
$0.70
$0.60
$0.50
$0.40
$0.30
$0.20
$0.10
$0.00
1027.1
977.0
1537.8
1353.1
1443.8
1278.9
1218.4
1083.8
1178.5
1023.8
723.7
688.8
740.4
611.7
78
79
80
81
82
83
84
85
Official
Net Commercial Bank


JORDAN'S EXTERNAL PUBLIC DEBT
$ Billions
$3.00
$2.80
$2.60
$2.40
$2.20
$2.00
$1.80
$1.60
$1.40
$1.20
$1.00
$0.80
$0.60
$0.40
$0.20
$0.00
1979
1980
1981
1982
1983
1984
1985
Total External Debt
Owed to Banks

lessens. By offering credit facilities and entering into a bilateral payments agreement, Jordan has succeeded in bolstering exports to Iraq. However, as Iraq's economy deteriorates, the liquidity of any outstanding credit claims against Iraq lessens. Financial support by the Gulf States to Iraq represents a heavy claim on their oil revenues. As this burden continues and oil earnings are reduced, the willingness of the Gulf States to furnish economic assistance to Jordan as well may be reduced. Lastly, the war itself is said to reduce investor confidence in the region, including Jordan.

For Jordan's chief merchandise export earners near-term prospects are also clouded. Exports from Jordan's mining industry dominate Jordan's exports, with phosphate rock accounting for 27 percent of the $680 million in domestic exports in 1984 and fertilizer 23 percent (up from only 3 percent in 1982). For these commodities international price trends are not altogether promising. The World Bank forecasts that phosphate prices will remain below the peaks reached in the early 1980's but, in constant Dollar terms, will by 1990 gain 15 percent over current 1985 prices.

E. JORDAN'S FIVE-YEAR PLAN FOR ECONOMIC AND SOCIAL DEVELOPMENT, 1986-1990

Acknowledgement of external financing constraints have forced Jordan to reduce the current plan's GDP growth target to 5 percent as against the 11 percent target of the previous plan. Of total planned investment, the public sector is expected to account for some 60 percent; the private and mixed sector for the remaining 40 percent. Domestic revenue collections are targeted to exceed current expenditures, and this projected surplus together with donor aid and foreign and domestic borrowing are to finance the public sector's share of total investment. Under the planned investment program, mining and agriculture are to be the most rapidly expanding sectors, with annual increases in their value added targeted at 8.0 percent and 7.8 percent respectively (see table below for projected sectoral growth rates). Manufacturing growth is forecast at 7.0 percent and transport and communications at 5.6 percent; growth in other sectors is to average roughly 4 percent per annum.

JORDAN FIVE YEAR PLAN, 1986-1990
PRELIMINARY PROJECTIONS

	TARGETED GROWTH IN VALUE ADDED	NEW JOB CREATION (NUMBER)	SECTORAL DISTRIBUTION OF NEW JOBS
Agriculture	7.8%	16,700	17%
Mining	8.0%	1,600	2%
Manufacturing	7.0%	11,000	11%
Water & Electricity	4.8%	1,500	2%
Construction	4.0%	12,300	13%
Trade	4.0%	7,600	8%
Transport & Communications	5.6%	11,200	12%
Government Services (including Defense)	4.3%	33,500	34%
Other Services	3.5%	1,900	2%
T O T A L	5.0%	97,300	100%

In employment creation, government services, agriculture, and construction are to be the three leading sectors, together expected to account for 64 percent of the 97,300 new jobs formed as a result of Plan investment. Total demand for new labor over the course of the five year Plan is projected to total some 201,000, with the sources of labor absorption comprising the following:

TOTAL DEMAND FOR NEW LABOR	
New Job Creation	97,000
Replacement of Deaths, Retirements	29,000
Out-Migration by Workers	25,000
Replacement of Foreign Workers	50,000
T O T A L	201,000

TOTAL SUPPLY OF NEW LABOR	
New Entrants from Educational System	202,000
Workers Returning to Jordan	25,000
Currently Unemployed	40,000
	267,000
Excess of Labor Supply Over Demand	66,000

In terms of labor supply, job seekers over the Plan period will include (1) new entrants to the labor force from the educational system who are projected to total some 202,000, (2) returning migrant workers from the Gulf States, forecast at 5,000 annually for a total of 25,000 over the Plan period, and (3) current unemployment of some 40,000. With these projections of labor demand and supply, unemployment is to rise from a current level variously estimated at between 6 percent and 8 percent to over 9 percent in 1990.

Balance of payments projections prepared for the Five-Year Plan under a 5 percent GDP growth rate scenario assume stabilization of Arab donor aid flows and remittances at roughly current levels. In current prices, merchandise exports are forecast to rise at an annual rate of 12.6 percent and service exports at 10.0 percent. Growth in merchandise imports is to be confined to 5 percent in current prices (2.8 percent in real terms); imports of services are projected to increase at 8.1 percent annually. On the basis of these projections and assumptions, Jordan's current account deficit is expected to remain at roughly the level realized in 1984 and 1985, that is between $200 and $300 million. To finance these current account deficits and to raise reserves sufficient to cover imports for 4.5 months, total borrowing of JD 1 billion or some $3 billion is required with the Plan projecting that JD 600 million will be raised from multilateral and bilateral official donors and JD 400 million from commercial sources. Jordan's debt service ratio, computed on the basis of earnings from goods and services exports, including remittances, is projected to rise from its 1984 level of 9 percent to 14.7 percent in 1990.

F. GRAPPLING WITH JORDAN'S NEW ECONOMIC REALITIES

1. Balance of Payments Implications

While Jordan has acknowledged that external resource constraints severely limit the amount of growth that can be expected, the Plan, even under the 5 percent GDP growth scenario, may well be overly optimistic. Jordanian policy makers remain persuaded that, for the short-term, Jordan can finance its balance of payments deficits without recourse to either IMF Stand-by or World Bank structural lendings. A number of assumptions lying behind the Plan's balance of payments projection are open to question; in particular:

* The projected low rate of real import growth (2.8 percent vs. 5 percent GDP growth) is based on a restructuring of tariffs and presumptions that consumer demand for imported durables has been saturated, that future demand will be limited largely to replacement needs, and further that consumer import expenditures will be influenced by expectations of declining income. Should import growth fail to be contained, the current account deficit would widen considerably, placing a severe strain on Jordan's external finances.

* The Plan's export growth target is ambitious and rests largely on projected output increases for the mining industry, for which price trends are open to considerable uncertainty.

* Given previously mentioned trends in oil prices and impacts on the economies of the Gulf States, the assumption that workers' remittances and Arab donor aid will remain level throughout the period is optimistic.

In sum, even for a modest 5 percent GDP growth target, external financing may be constraining. Given Jordan's natural population growth rate estimated between 3.4 percent and 3.7 percent, attaining even the 5 percent GDP growth target would translate to per capita GDP growth of only 1.3 percent to 1.5 percent.

Continuation of a CIP program throughout the CDSS planning horizon would furnish Jordan financial resources for balance of payments financing that would better enable the country to achieve even its modest per capita GDP growth targets. It would provide better surety of stability in the economy, which, in turn, would permit the Government to take political risks necessary for movement in the Middle East peace process. USAID's policy dialogue agenda at the macroeconomic and sectoral levels is substantial. Programmming continuation of the CIP furnishes a level of financial resources which allows some measure of conditionality to be attached to the program to achieve policy change and which legitimizes a high level, open, substantive, and informed policy dialogue process among Jordanian economic policy makers and USAID.

2. Development Strategy Implications

While Jordan has pursued a generally prudent course of demand management in response to reduced external grant and remittance inflows, Jordan has been less quick to grapple with the implications for its own development strategy of the new economic realities it faces. As indicated above, the past sources of growth for the Jordanian economy -- remittances and high levels of government expenditure, supported by Arab donor aid are unlikely to be the engines of Jordan's development in the future. In addition, continued growth in phosphate and fertilizer exports and exports of light manufactures and

transit services to neighboring Arab countries and the Gulf states will be difficult in the face of poor world commodity prices and market contractions in the countries of the Arabian peninsula.

While Jordan's Plan for 1986-1990 acknowledges that external resources will be fewer, there is little recognition that a restructuring and re-orientation of the economy is necessary if Jordan is to develop new, self-sustaining sources of growth. In many respects, the forthcoming Plan resembles its predecessors, the chief difference being a cut-back in the size of projected investments. Investment patterns remain unchanged; government is expected to furnish the bulk of total investment -- 60 percent and the private sector, 40 percent, with mixed enterprises, which have enjoyed indirect government support, accounting for a large share. Government investment in infrastructure and public services is expected to provide a major share of expected new job formation.

The fact is with rapid labor force growth, uncertainty in external financing for the government's investment budget, and tighter export market prospects, old patterns of investment and development cannot be counted upon to provide the development and employment growth Jordan seeks. The Government's ability, for example, to provide employment for an additional 33,500 over the course of the next five year plan is heavily dependent on the Government securing the financing necessary for continued increases in recurrent and investment outlays. Targets for increased domestic revenues are, in part, dependent on higher rates of growth. Achieving public investment targets is, in turn, dependent on increased external financing, which is highly uncertain, given current trends in Arab donor aid, competing demands from other aid recipients for concessional lending, and the economy's grimmer outlook which lessens Jordan's ability to raise funds on international capital markets. Moreover, stabilized remittances and slower growth in government capital expenditures imply that job creation in the construction industry will also fall off.

Plan projections that the agricultural sector will furnish 16,700 new jobs over the forthcoming five-year plan and further that Jordanians will replace 50,000 foreign workers are also open to serious question. Agriculture is becoming increasingly mechanized, and Jordanians have been largely unwilling to take manual jobs in agriculture and construction, the sectors employing the greatest number of foreign workers.

Jordan's employment position has dramatically changed from labor scarcity in the late 1970's and early 1980's to labor force excess, with unemployment currently variously estimated at between 6 to 8 percent. With Jordan's labor force growing by some 4 to 6 percent annually and employment opportunities in the Gulf stagnating, rising levels of unemployment are certain. Declining economic activity in the Gulf States should have a depressing effect on overall wage levels there and coupled with growing unemployment within Jordan should exert a strong downward push on wage levels within Jordan. These wage level adjustments should serve to make Jordanian industry more competitive internationally and gradually make investment in new output more attractive, thereby raising employment levels. Indeed, as the labor market adjusts to the new economic realities, it is the development of private sector manufacturing and service industries, both for export and cost competitive import substitution, that offer the best promise for sustainable future income and employment growth.

The Government's efforts in the past to assist private sector development in Jordan have, however, been highly capital intensive and included direct

interventions to create new industries, such as the cement and fertilizer industries. Paternalism towards domestic industry has been manifest in growing protectionism for domestic industry and in the the licensing of new manufacturing firms where preventing undue competition for existing firms and market saturation have become governing factors. Government guarantees on corporate borrowing of semi-public enterprises coupled with exemption of such borrowing from interest rate ceilings have, by offering easy investments, impeded the development of better risk and credit assessments by financial institutions. Moreover, their effect has been to channel substantial amounts of financing into capital intensive ventures.

The current turnaround in capital-labor availabilities to a situation where labor can be expected to be more plentiful in comparison to capital requires more attention to the medium and small-scale enterprise, with the risk of failure or capital mis-use spread over many small investments. Given this requirement and the nature of the Government's past involvement in private sector development, AID can best assist the private sector to develop its capacity to furnish needed growth in income and employment by working directly with the private sector through private sector institutions. Thus, the centerpiece of AID's strategy is to work with private sector manufacturing and service sectors, empowering them to be the new engines of Jordan's income and employment growth.

III. USAID'S MACRO-ECONOMIC POLICY DIALOGUE AND COMMODITY IMPORT PROGRAM

At the macroeconomic level, USAID proposes a targeted policy dialogue agenda and continuation of a Commodity Import Program designed to furnish Jordan sufficient resources to support policy change for a restructuring of the economy.

A. MACRO-ECONOMIC POLICY SETTING AND USAID'S POLICY DIALOGUE AGENDA

1. Fiscal

As outlined earlier, Jordan has made substantial progress in raising the proportion of current expenditures financed by domestic revenues and in curtailing government expenditures in the face of reduced external resources. In the fiscal area, USAID's policy dialogue agenda encompasses (1) subsidies and (2) the incentive structure of Jordan's tax system.

While small in comparison to most developing countries, government subsidization of energy, water, certain foods, and higher education contributes to the government's budget deficit and has undoubtedly inflated demand for these products and services and led to misallocation of resources. In energy, consumption of certain petroleum products, notably diesel and fuel oils, have been subsidized. With fuel oil subsidized, electricity consumption has also been underpriced. The extent of petroleum and electricity subsidy is likely to decline, however, as the Government has announced its intention to maintain current domestic price levels, despite declining international oil prices. Water, especially for irrigated agriculture in the Jordan Valley, has been heavily subsidized. Bread and flour are subsidized, with part of the cost of the subsidy made up by profits on the sale of sugar, rice, and meat, the importation of which is a government monopoly. Tuition rates at Jordan's universities do not recover costs, and tax exemptions for tuition compound the economy's underwriting of higher education. These, in part, have led to the oversupply of post-secondary graduates and financing problems for Jordan's system of higher education.

Jordan's tax system has evolved as an accretion of a number of differing taxes, with incentives built into the system at a variety of times for a variety of purposes. Jordan's customs tariffs, for example, serve conflicting objectives ranging from generating revenue to import protection to curtailing import demand. Revenues from certain broad taxes, such as surcharges on imports, are dedicated for certain facilities, e.g. universities, a sports complex. In these instances, there is no connection between the taxpayer and facility user, and, with dedicated revenues, the costs of these facilities are relatively isolated from broad budget scrutiny. With excise taxes and surcharges built on top of customs duties, the tax system is complex and effective rates of taxation and protection are not easily determined. Moreover this layering of taxes as well as several lesser taxes such as the stamp tax are costly to administer and impose substantial transaction costs on business.

To effect a restructuring of the economy, the tax system should be consistent with objectives of maintaining revenues while increasing and channelling savings into productive investments which lead to greater employment and production for export markets as well as cost-competitive import substitution. However, the impact of the current structure and level of incentives is not well known with respect to such household and firm choices as:

* consumption vs. saving

* investment in productive assets vs. investment in consumer durables

* production for the domestic market vs. export importation vs. domestic production

For example, workers' remittances which, in large part, have been invested in real estate have been comparatively undertaxed, given the small share of property taxes in total domestic tax revenue. Moreover, capital gains from sale of land and buildings and rental income receive favorable treatment, compared to sales of financial or other assets. The extent to which these measures have led to greater investment in real estate assets than productive assets is unknown.

There is also some evidence that the pricing of capital is discriminatory against smaller enterprises. Tax and customs exemptions in the investment incentives law only apply to investments over a minimum threshold size, and maximum income tax rates are lower for public shareholding companies (which tend to be large, capital intensive, modern enterprises) than for non-public shareholding companies. Furthermore, bans on imports and a relatively high tariff structure have fostered a bias toward production for the domestic market. Recently, exemptions on income from exports were instituted, scaled to the proportion of exports to total sales. Whether these new exemptions overcome the bias toward producing and trading for the domestic market has not been studied. In sum, as part of an effort to restructure the economy and improve government efficiency, an examination and selective overhaul of Jordan's fiscal system would be appropriate.

2. Monetary

Generally, incentives for mobilization of domestic savings through financial institutions appear adequate. With inflation currently running at some 4-5 percent annually, the maximum interest rate allowed by the Central Bank on time deposits -- 8.5 percent offers both a substantial premium over inflation and has become competitive with international rates. The attractiveness of these rates is attested to by the shift in the composition of deposits, with time and savings deposits accounting for 76 percent of total deposits in 1985 vs. 64 percent in 1980. For individuals and non-financial enterprises, interest and dividend earnings are exempt from income tax.

On lending, the Central Bank imposes maximums on nominal lending rates. The current ceiling is 8.75 percent, but banks are permitted to add to this rate fees and commissions totalling some 1.5 percent. In addition, borrowers are often required to pay interest in advance, raising the effective cost of borrowing. With inflation running at some 3-4 percent, commercial lending rates are positive in real terms. Nonetheless, the ceiling on lending rates impedes development of an interest rate structure which discriminates among various categories of risk and tenor and has the effect of limiting bank finance to only the most creditworthy borrowers, who are able to post high collaterals. The specialized credit institutions which have access to advances from the Central Bank at concessionary rates of interest (3-5 percent) as well as funds from international donors offer lower lending rates, ranging from 6 percent to 8.5 percent.

In recent years, the government has participated more directly in the allocation of credit for industrial development. Government involvement has varied from direct government investment in enterprises to the subsidization, principally for public or mixed enterprises, of selected corporate bond issues and syndicated loans, which benefit from government guarantees, exemption from taxes and interest rate ceilings and which can be discounted at the Central Bank. Lastly, market segmentation in the capital market may have adversely affected the economic efficiency of credit allocation. In particular, the predominance among commercial banking institutions of the Housing Bank with a charter emphasizing its financing to housing, construction, and construction materials production, may have channelled a greater proportion of financial resources toward investments in housing, office buildings, and other non-residential structures and away from productive assets.

3. Exchange Rate and Trade and Payments Regimes

By and large, Jordan's economy, like those of many small developing countries, is an open one, as attested by the high proportion of exports and imports to GNP: 34 percent and 73 percent respectively in 1984. Capital and payments controls are few; residents may open foreign currency accounts, and a substantial network of moneychangers keeps the exchange market relatively open.

With an exchange rate pegged, since 1975, to the SDR, Jordan has generally pursued prudent fiscal and monetary policies thereby avoiding the cost of mismanagement in fixed exchange rate systems: catastrophic capital flight and official reserve losses. Nonetheless, the tying of the Jordanian Dinar to the SDR, with its large dollar weight and the appreciation of the dollar, had in recent years led to an appreciation of the dinar vis a vis European currencies and those of developing countries selling to Jordan's principal agriculture and manufactured export markets: Saudi Arabia and other Arab markets. As a result, Jordanian exports may have suffered some competitive disadvantages. Indeed, it is generally accepted that the current level of Jordan's exchange rate overprices Jordan's merchandise exports and underprices goods imports.

Bans have been introduced on the importation of a wide variety of products similar to those produced domestically. Furthermore, a relatively high tariff structure has fostered a bias toward production for the domestic market. Recently, exemptions on income from exports were instituted, scaled to the proportion of exports to total sales. Whether these new exemptions overcome the bias toward producing and trading for the domestic market has not been studied.

4. Population

A very high natural population growth rate in Jordan -- estimated at 3.4 to 3.7 percent -- compounds Jordan's economic difficulties and development problems. With high dependency ratios and a greater call on government resources for health and education services, the government faces more severe financing difficulties than would be the case. To provide employment, rates of job creation and investment must also be higher. The Government, however, has no strong policy position on family planning, which, in effect, has served to reinforce the pronatalist tradition in the country.

5. USAID's Macro-economic Agenda

In light of the above macroeconomic policy setting and as further elaborated in the sectoral analyses in the body of the CDSS, USAID has formulated a macroeconomic policy dialogue agenda which focuses on the following items:

a. Fiscal

* Reforming the tax system to serve a needed restructuring of Jordan's economy and

* Reduction and rationalization of government subsidies in food, energy, water and higher education.

b. Monetary

* Abolition or raising of interest rate ceilings and

* Reduction of preferential credit allocation via government syndicated loans and bonds.

c. Exchange Rate and Trade and Payments Regime

* Exchange rate adjustment and

* Reduction of level of protection afforded domestic market and raising of incentives to export.

d. Population

* Formation of a more progressive national population policy and inclusion of family planning services as a part of national health policy.

Under terms of the CIP agreement, representatives of USAID and the Ministry of Planning must hold economic consultations not less than twice each year to provide both organizations with a formal opportunity to improve understanding of macro-economic performance and of policies and programs effecting Jordan's financial circumstances, growth and development. (N.B. USAID intends to seek regular, quarterly economic consultations with the Ministries to assure that the fast moving economic situation is adequately tracked). These consultations furnish an important venue for policy dialogue. Those already held have been instrumental in fostering a critical exchange on the policy and program emphases of Jordan's forthcoming five year plan and of the Mission's policy dialogue agenda and programming emphases.

To move policy dialogue forward in the areas of tax structure, subsidies, and price controls, a better factual analysis of the costs and benefits of current policies is required. For this reason, three specific policy studies are planned or underway:

* Fiscal Policy Planning: To examine (a) the incentive effects on savings, consumption, production for the domestic market vs. export of tax, import, and export regimes, (b) the costs, beneficiaries, and effectiveness of current consumer product price controls, food subsidies, and government food import monopolies, and (c) alternative schemes to improve incentive structures and support the needs of low-income groups. Improving the capacity of the government to undertake such policy analyses and implement changes will also be key components.

* Petroleum Supply and Energy Pricing Study: To assess economic costs and benefits of current and alternate pricing schemes and of alternative supply and distribution systems.

* Costs of service (i.e tariff) studies for Jordan's electricity and water authorities.

To improve the quality of policy debate, wider and more effective participation by those affected by government decisions is important. To broaden the participation in policy dialogue, USAID plans to assist in developing associations of consumers and producers and to provide them with analytical capacities to strenghten their advocacy positions. Consumer groups could, for example, become effective in advocating changes in the regulation of retail trade, import monopolies, and cross-subsidy schemes which adversely affect the majority of consumers. In addition, USAID will strive for coordination with other major donors, including the IMF and World Bank, on exchange rate adjustment and abolition of interest rate ceilings.

B. USAID's COMMODITY IMPORT PROGRAM

On August 15, 1985, President Reagan signed the Supplemental Appropriation Act for FY 1985 which provided $250 million in additional assistance for Jordan of which $160 million was set aside for a Commodity Import Program (CIP). About half of all CIP funds have been set aside for private sector purchases.

USAID believes that a continuation of the CIP, at least through the period of this CDSS, will be essential if Jordan is to have sufficient financial resources to improve its balance of payments position and if the Kingdom is to achieve modest per capita growth. Also, the USAID feels that a continued CIP will allow A.I.D. to continue to pursue its macro-economic policy dialogue agenda with the GOJ at a critical time in Jordan's economic history when a major restructuring of the economy is required.

USAID and the Government of Jordan intend to shift the public/private sector CIP split from 50-50 to 40 percent public, and the remander for the private and mixed sectors.

1. Private and Mixed Sector CIP

The private sector includes proprietorships, partnerships and private corporations as well as public stock and joint venture companies not funded by the national budget. These private sector entities apply for letters of credit through commercial banks on a first-come-first-served basis. The CIP, by offering access to U.S. foreign exchange with attractive financing, will stimulate private sector business and economic growth.

Priority imports under the private sector CIP will be productive in nature, i.e. capital equipment and spares, and intermediate goods and raw materials which receive further processing in Jordan and produce value added increments to GNP. Whether or not the Zorinsky Amendment is applicable to Jordan, the private sector CIP will target agricultural commodities in response to the Zorinsky amendment requirements.

Jordan's CIP has already financed a $13 million "Tied-Aid" procurement of two walking draglines by the Jordan Phosphate Mining Company. USAID will continue to consider the "Tied-Aid" alternative where there is reasonable proof that concessional financing is being arranged for a competing non-U.S. supplier.

2. Public Sector CIP

Through the Public Sector CIP, A.I.D. hopes to save Jordan significant amounts of foreign exchange on its purchases of U.S. commodities. The Ministry of Planning (MOP) is responsible for approving individual ministry requests and for overall allocation of CIP Public Sector purchases in coordination with the cabinet. USAID reviews allocation proposals and approves them if they fit USAID's criteria for public sector CIP imports. Such imports must:

a. be capital goods, for which there is no domestic production capacity, and consistent with the Kingdom's Five Year Development Plan;

b. improve efficiency of government infrastructure or delivery of government services, especially those used by the private sector; and

c. not lead to government production of goods and services where the private sector is or could be active.

3. Generation and Uses of Local Currency

As commodity transactions are completed under both the private and public sector CIPs, local currency is generated and deposited in a "Special Account" at the Central Bank. These funds will be programmed jointly by USAID and the GOJ for use in support of Jordan's development. Funding allocations will be according to the following priorities:

a. To support priority projects from the GOJ's Five-Year Development Plan which are not funded or are underfunded. Donor assisted projects will receive high priority and those of USAID the highest.

b. To develop programs supportive of AID's strategy in private sector and human resources development, such as:

(1) capitalization of a student loan program,

(2) capitalization of an export credit fund, and

(3) capitalization of an export insurance fund.

c. To provide in-country technical services and training support.

d. To provide Trust Funds to support the USAID. (Beginning in FY 1987, USAID expects that Trust Funds equivalent to $750,000 will be available to more than cover the USAID's operating expense budget in local currency.)

IV. SECTORAL ASSESSMENTS

A. PRIVATE SECTOR

1. Sector Overview

The private sector*/ in Jordan accounts for a significant and stable proportion of total income, employment, investments, and exports. Tables A-C which follow this page present preliminary estimates of the relative importance of the government versus private sectors across the entire spectrum of the economy. Estimates of the private sector share of gross domestic product range from 55-65 percent, although it accounts for a smaller share, between 50-60 percent, of employment. This primarily reflects the lower productivity and lower wages in government. Measured in terms of exports, the private sector contributes 30-40 percent of total goods and services. Actual investment outlays of the private sector are reported to account for 50 percent of capital formation.

In general, the private sector predominates in the production of agricultural and manufactured goods, in construction, trade, and a wide range of productive services such as accounting, banking, engineering, insurance, consulting, education, etc. An overview of each of the major sectors (excluding agriculture, which is presented separately in Section III.C.) follows:

a. Manufacturing and Mining

The sector is generally characterized by large, natural resource based industries such as phosphates, potash and cement which have substantial government ownership and management participation, and a large number of relatively small, privately owned manufacturing firms. The latter are generally oriented towards the production of consumer goods. It was not until the 1970's that the government became a major force within the sector making huge investments in potash, fertilizers, timber, and glass. This was made possible by official grants from the Gulf States.

As might be expected, the overwhelming number of establishments in the sector are privately owned and operated. The Department of Statistics estimates that there were 6,721 firms operating in 1983 and that roughly four-fifths employed only 1-4 persons. It is estimated that there are close to 50 industrial firms in which the government owns some equity ranging from as little as 0.5 percent to as much as the 90.2 percent share owned in the Jordan Phosphate Mines. The government owns more than 50 percent of the share capital in each of 10 separate industrial companies.

Of the 56,000 people employed in 1983 in mining and manufacturing 8,300 (i.e. 15 percent) were working in companies where the government either directly or indirectly owned more than 50 percent of the total paid in capital. If the government sector is more broadly defined to include all firms in which the government owns more than 20 percent equity, then employment in parastatals rises to 13,300.

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*/ The term "private sector" is used herein to define firms in which private interests control more than 50 percent of share capital. Exclusion from the "private sector" of firms where the government owns between 20-49 percent does not significantly change the relative shares of employment, GDP, exports, and investment.

TABLE A
EMPLOYMENT: GOVERNMENT VS. PRIVATE SECTOR
(IN THOUSANDS)

	1983 EMPLOY-MENT	SECTOR DISTRIBU-TION	ESTIMATED % OF SECTOR GOV'T	ESTIMATED % OF SECTOR PRIVATE	ESTIMATED % OF TOTAL GOV'T	ESTIMATED % OF TOTAL PRIVATE
Agriculture	51.2	10.1%	0.0%	100.0%	0.0%	10.1%
Mining	4.6	0.9%	75.0%	25.0%	0.7%	0.2%
Manufacturing	51.2	10.1%	9.0%	91.0%	0.9%	9.2%
Construction	76.9	15.1%	0.0%	100.0%	0.0%	15.1%
Trade*	48	9.4%	2.0%	98.0%	0.2%	9.2%
Finance, Real Estate Business Services	10	2.0%	0.0%	100.0%	0.0%	2.0%
Other Services**	24.4	4.8%	0.0%	100.0%	0.0%	4.8%
Electricity & Water	9.5	1.9%	81.0%	19.0%	1.5%	0.4%
Transportation & Communications	41.6	8.2%	52.0%	48.0%	4.3%	3.9%
Public Administration and Defense	191.6	37.5%	100.0%	0.0%	37.5%	0.0%
TOTAL	509	100.0%			45.1%	54.9%

* Includes hotels and restaurants
** Includes community, social and personal services, non-profit institutions, and domestic services

TABLE B
GDP: GOVERNMENT VS. PRIVATE
(IN MILLIONS OF JD'S)

	1984 GDP	SECTOR DISTRIBU-TION	ESTIMATED % OF SECTOR GOV'T	ESTIMATED % OF SECTOR PRIVATE	ESTIMATED % OF TOTAL GOV'T	ESTIMATED % OF TOTAL PRIVATE
Agriculture	111	8.4%	0.0%	100.0%	0.0%	8.4%
Mining	44	3.3%	90.0%	10.0%	3.0%	0.3%
Manufacturing	193	14.6%	30.0%	70.0%	7.3%	7.3%
Construction	127	9.6%	0.0%	100.0%	0.0%	9.6%
Trade*	241	18.3%	10.0%	90.0%	1.8%	16.5%
Financial, Real Estate, Business Services	124	9.4%	0.0%	100.0%	0.0%	9.4%
Other Services**	54	4.1%	0.0%	100.0%	0.0%	4.1%
Electricity & Water	32	2.4%	90.0%	10.0%	2.2%	0.2%
Transportation & Communication	152	11.5%	70.0%	30.0%	8.0%	3.5%
Public Administration and Defense	241	18.3%	100.0%	0.0%	18.3%	.0%
T O T A L	1319	100.0%	N/A	N/A	40.6%	59.4%

* Includes restaurants and hotels
** Includes community, social and personal services, non-profit institutions, and domestic services

TABLE C
EXPORTS: GOVERNMENT VS. PRIVATE SECTOR
(IN MILLIONS OF JD'S)

	1984 EXPORTS	SECTOR DISTRIBUTION	ESTIMATED % OF SECTOR GOV'T	ESTIMATED % OF SECTOR PRIVATE	ESTIMATED % OF TOTAL GOV'T	ESTIMATED % OF TOTAL PRIVATE
I. GOODS						
Agriculture	41.8	6.1%	0.0%	100.0%	0.0%	6.1%
Mining	87.1	12.8%	100.0%	0.0%	3.0%	9.8%
Manufacturing	132.1	19.4%	34.0%	66.0%	7.3%	12.1%
TOTAL I	261	38.3%	50.0%	50.0%	10.3%	28.0%
II. SERVICES						
Tramsportation*	307.8	45.2%	100.0%	0.0%	25.8%	19.4%
Government	7.8	1.1%	100.0%	0.0%	0.7%	0.4%
Insurance (non-merchandise)	17	2.5%	0.0%	100.0%	0.0%	2.5%
Other	87	12.8%	0.0%	100.0%	0.0%	12.8%
TOTAL II	419.6	61.7%	66.4%	34.6%	26.5%	35.2%
TOTAL I & II	680.6	100.0%	N/A	N/A	36.8%	63.2%

* Includes freight and insurance, other transportation, and travel

There are no readily available statistics on the breakdown of GDP between the private and government sector companies. It is estimated, however, that the division is close to 60 percent government/40 percent private due to the higher value added in the large, government dominated, resource based industries.

b. Services

What is loosely referred to as the "services sector" accounts for the bulk of national income, employment, and exports if one includes remittances. Roughly half of services sector employment is in government administration (including education) and defense. However, if Government participation in the provision of "infrastructure" such as transport, communications, and energy is included, then the proportion increases significantly*/.

(1) Construction

This sub-sector, which grew quite rapidly during the period between 1975-1983, is dominated by private sector firms. In Amman alone, where the majority of new construction work has taken place, there are almost 400 firms. In 1983, the sector employed 77,000 workers, i.e. significantly more than the mining and manufacturing sectors combined. Many of these workers are foreigners.

(2) Trade

In terms of its relative and absolute contributions to employment the trade sub-sector has declined significantly from 1975 to 1983 although it still accounted in 1983 for 9.4 percent of the labor force and 18.4 percent of GDP. The sub-sector is characterized by a large number of very small, privately owned establishments. (There are well over 1,000 companies listed in the 1984 Trade Directory of Jordan as "importers"). The Government intervenes through the Ministry of Supply in the importation of certain basic commodities such as wheat, rice, sugar and meat. These represent import monopolies which allow the Government to easily control their prices. Most of these commodities are then sold to private wholesalers and retailers; however, some of these commodities are retailed through government commissaries.

Tourism is included within this category. In 1983 there were approximately 226 hotels employing some 5,000 people. Some of the larger hotels have significant government ownership. Total employment within the tourism sector is estimated at 6,000 persons.

(3) Finance, Real Estate, and Business Services

There are more than 25 local and foreign financial institutions operating in Jordan including commercial banks, investment or merchant banks, exchange houses, and specialized institutions such as the Housing Bank and the Industrial Development Bank. Few of these institutions have significant government ownership.

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*/ USAID expects to fund an assessment of the productive services sector in FY 86 which will examine its characteristics, constraints, and possible AID project interventions.

Engineering offices, accounting firms, management consultants, and maintenance/repair shops fall in the category of business services. Roughly 10,000 people are employed within the sub-sector.

(4) Other Services

The category includes community, social, and personal services, non profit-institutions, and domestic services. Of the 5,000 or so people employed within the medical profession, close to 60 percent are privately employed.

(5) Electricity and Water

There are three organizations which control the production and distribution of electric power: 1) the Jordan Electricity Authority (JEA), which generates all electric power and accounts for some of the distribution networks; 2) the Jordan Electric Power Company (JEPCO), which owns and operates the distribution network in the Amman area; and 3) the Irbid District Electricity Company (IDECO), which owns and operates the distribution networks in and around Irbid. While the JEA is 100 percent Government-owned, private interests control 77 percent of JEPCO and 11 percent of IDECO. Water and wastewater services are under the control of two Government organizations, the Water Authority of Jordan and the Jordan Valley Authority.

(6) Transport and Communications

The sector is dominated by Government organizations which control roads, railroads, ports, marine transport, airlines, mass transportation, two trucking companies, and the Telecommunications Corporation. The private sector, however, predominates in the trucking industry as well as the operation of intra and inter-city taxi companies. It should be noted that the Government has expressed strong interest in privatizing two of the largest actors within the sector: Alia, the Royal Jordanian Airlines (with assets of over $500 million) and the Telecommunications Corporation. Such moves stem in large part from difficulties in raising capital for these organizations.

2. Sectoral Constraints on Development

a. Government Policies

(1) Restrictions on Market Entry

One of the major hurdles faced by almost every private sector entrepreneur is the Government license. Whether he is a manufacturer, farmer, importer, contractor, consulting engineer, or accountant, he must obtain permission to operate from one of the various government ministries; this is in addition to city or village requirements. Licenses are granted on the basis of the Government's perceptions of the entreprenuer's qualifications and/or the market for which he is going to produce. Licensing requirements are quite separate from laws governing incorporation, which are generally thought to be reasonable.

The various government institutions take a paternalistic attitude in dealing with potential investors in the belief that the government itself has more accurate market information about particular products and services. In many cases it is true that the investor does not have a clear idea about the market that he wants to serve. It is also true, however, that the Government has not always succeeded in picking out the winners and losers. In the process, innovation and competition are stifled.

Among the strictest licensing regulations are those of the Ministry of Industry ("Licensing and Control of Industry", Instructions No. 1 of 1973). They require that a license be obtained before the opening of any new industrial company (regardless of the size of its operation), and that existing companies wishing to expand or modify their operations obtain specific permission from the appropriate ministry. Each investor is required to submit an application for a license along with a "feasibility study". In the case of small companies, (i.e., those employing 5 persons or less and having capital of less than 10,000 Jordanian Dinars), the "study" is just a one page application form which can be approved "on the spot", according to Ministry officials. For investments of up to JD 250,000, a 20 to 30 page "feasibility study" is required from the investor. A complete and detailed feasibility study must be undertaken by a "reputable" firm for any investment over JD 250,000.

(2) Incentive Structure

The current structure, as represented by the interplay of the foreign exchange rate, taxes and tariffs, and restrictions on imports and market entry, not only tends to encourage import substitution activities over exports, but may also act to direct investment away from the productive sectors altogether. In coming to a decision on whether to produce for the foreign or domestic market, the investor has many forces pulling in the latter direction. Since 1975 the Jordanian Dinar has been pegged to the SDR. Although this has resulted in a stable currency value, it has also kept the Jordan Dinar (JD) at a much higher value than would be in the case under a freely floating system. This, combined with high tariffs, outright bans on certain categories of imports, and poor administration of customs drawback schemes, makes the risk/return profile of investment for the domestic market more attractive than for the export market.

Many investors, primarily workers returning from the Gulf countries, have preferred to put their money in real estate rather than the "productive" sectors. Although the government has instituted a generous system of tax incentives for productive investment through the Encouragement of Investment Law of 1984, the incentives tend to be "icing on the cake", since they are customarily granted after the investor has already made a decision to proceed. Also, the law discriminates against smaller investments by specifying minimum sizes for eligibility.

(3) Controls on Financial Markets

The detrimental effects of government regulation have seldomly been recognized as serious constraints to private sector growth. However, Central Bank ceilings on interest and deposit rates, government guarantees for the loans and bonds of Government-sponsored companies, and financial market segmentation (i.e., limiting areas where certain financial institutions can operate) all have the effect of seriously limiting capital mobilization needed for private sector growth. Financial constraints are further addressed below.

b. Government Ownership of Commercial Enterprise

As shown in the sector overview, the Government plays a significant direct role in the economy accounting for an estimated 45 percent of employment, 41 percent of GDP, and 37 percent of exports. In addition to its role in defense and public administration, which includes public education and Ministry of Health hospitals and clinics, the Government owns and operates a number of commercial enterprises in manufacturing, mining, transport, communications, and electricity and water.

Obviously, the more the Government involves itself in the provision of goods and services, which could be provided by the private sector, the fewer opportunities there are for private sector entrepreneurs. The latter have generally been much more successful in exporting incomes and employment than have Government enterprises.

In some cases government intervention has been justified on the basis of the huge investment and risk involved in certain undertakings, such as the $500 million investment required to extract potash from the Dead Sea. However, the Government, having succeeded in establishing such projects and bringing them to the point of commercial operations, seems reluctant to relinquish control and/or ownership. There are also many examples where government ownership probably "crowds out" private investment. For example, the Government owns and operates several flour mills and has a substantial share of the equity in the Jordan Cigarette and Tobacco Company, the sole local producer of cigarettes. In addition, the government either directly or through Government controlled institutions owns significant equity in such relatively low risk, low capital intensity businesses as textiles, apparel, dairy products, and tourism.

c. Financial Constraints

As mentioned above, a number of government policies act to constrict the flow of capital to private sector companies. Even if these policies are changed, however, it is likely that the productive private sector will continue to face problems in obtaining finance. One of the major impediments is the risk averse character of financial institutions who rely heavily on collateral to back up most lending. This relates in part to the relative newness of industry to the Jordanian bankers who have traditionally dealt with trade transactions.

There is a strong need to develop within financial institutions the capabilities to analyze credit risk. Such an improvement would facilitate more lending on the basis of cash flows rather than collateral. Risk aversion might also be mitigated by instituting credit insurance schemes, particularly for working capital needed for financing export transactions.

Finally, and as a corollary to the problems mentioned above, Jordan has no institutions specializing in venture/risk capital. The result is that many worthy investments often go unfinanced.

d. Poor Efficiency and Quality of Locally Produced Goods and Services

(1) Lack of Management Skills

There is a shortage in Jordan of general management skills, such as the abilities to delegate and to motivate subordinates, and of specific functional skills in marketing, production and finance. Few companies develop overall business plans or strategies, and as a result, often find themselves reacting to changed circumstances as they arise rather than anticipating them. In industry, some of these problems can be attributed to the prevalence of managers who are trying to branch out from traditional trading activities.

(2) Poor Product Design and Adaptation

According to a recent survey of the industrial sector by Coopers and Lybrand, original product design and product adaptation are lacking in many companies,

especially the smaller ones. Neither vocational schools nor universities/colleges offer programs in industrial art and design. Similar problems face the services sub-sectors.

(3) Production Problems

If Jordanian companies are to succeed in marketing their products to new customers, dramatic improvements will be required in product quality and cost. Problems on the production floor can be attributed to: poor plant design and layout; a lack of modern management systems for production planning, cost analysis, quality assurance, and maintenance planning; and poor execution of plant maintenance. Delivery of quality services at a reasonable cost is also a problem.

c. Weak Private Sector Business Organizations

Many private sector businessmen feel that existing associations, such as the Chambers of Industry and Commerce, do not adequately represent their interests before public policy makers and do not provide useful services. In part these problems relate to the fact that membership in many business or professional organizations, such as the Engineers' Association, is made mandatory by Jordanian law. With guaranteed sources of income from Government-mandated annual fees, some of these organizations have little incentive to really serve their members.

A further constraint is the lack of coordination among existing private sector associations. For example, the Chamber of Commerce, which represents all traders and commercants, generally supports the idea of free trade, while the Chamber of Industry, which represents manufacturers, argues for high import quotes and tariffs. Such conflicting viewpoints, all coming from the private sector, allow government policy makers to play one interest group off against the next.

f. Inadequate Marketing and Promotion of Jordanian Products, Services and Investment Opportunities

One of the main problems with Jordanian companies is that they sell their products and services rather than market them. Seldom do local companies perform detailed analyses of market characteristics and the requirements of customers prior to market entry. As a significant portion of recent growth in exports can be attributed to the "pull" of the regional Arab Market, many Jordanian companies have not felt the need to develop a strong marketing orientation. As these traditional markets dry up, the shortage in marketing skills has become more acute. Traders in Jordan generally have a strong orientation towards importation and sale for the domestic market and little interest in export markets. As in the case of manufacturers, part of the problem stems from government policies which make the domestic market more attractive than foreign markets.

Interestingly, the same lack of marketing skills which characterize Jordanian private sector companies, also affects the Government and private sector business organizations when it comes to investment and export promotion. While there is a Department of Investment Promotion within the Ministry of Industry, it does little more than review applications for customs and tax exemptions under the Encouragement of Investment Law of 1984. The Industrial Estates Corporation, a Government-owned corporation tasked with developing land for industrial use, has initiated some promotional efforts but these are still at an early stage and will require much outside assistance. Government efforts at export promotion have focused almost totally on bilateral trade

agreements. Private sector organizations do little in the way of investment or export promotion.

g. Negative Perceptions of the Private Sector

To some Jordanians, particularly those who work for the Government, the term "private sector" has many negative connotations, such as the exploitation of consumers and laborers and the avoidance of taxes. Of course, such attitudes toward the private sector are not unique to Jordan. While they tend to be less severe in Jordan here than in many other countries in which AID works, they still account for many restrictive government policies, such as government ownership, which restrain private sector growth.

h. Inefficient Public Services and Facilities

USAID's recent shift in programmatic emphasis towards the private sector stems in part from the realization that major improvements have already been achieved in Jordan's physical infrastructure. Today, constraints have more to do with the quality and cost of public services and facilities rather than a significant lack thereof. For example, the private sector is extremely dependant upon the movement of goods through the Port of Aqaba, the only port facility in Jordan. While the physical facilities there are first rate and are being improved continuously, clearance of goods is slowed down by the inefficiency of the current customs operations.

3. Government's Sectoral Strategy

The draft outline of the Government's new five-year plan for 1986-1990 espouses the following "concepts":

* Preference for market forces and private initiative ("free enterprise"); and

* Restriction of the public sector to the provision of infrastructure, appropriate policies and the creation of "initial momentum" for large scale enterprises where private initiative is lacking.

In the recently held macro-economic policy dialogue discussions held by USAID and the Ministry of Planning, the GOJ representatives confirmed that the Government intends to "create a new investment climate to stimulate the growth of the private sector".

In the face of a worsening trend in its current account over the past several years, the Government has turned much of its attention to ways of stimulating exports, especially from the private sector, and compressing imports. In the past year the following measures have been taken to stimulate exports: 1) tax exemptions have been provided of up to 35 percent percent for firms which export; 2) Central Bank interest rates have been reduced for re-financing of exports and extensions of the maturities from 6 to 18 months; 3) the customs drawback system has been simplified; and 4) studies of export credit guaranties and insurance for non-commercial risk have been undertaken. In order to reduce imports, the Government also: (1) placed an outright ban on commodities which could be produced in sufficient quantities by local firms; and (2) increased the tariffs on a number of other items.

A recurring theme in the draft five-year plan is the need to stimulate exports of both goods and services. The Government plans to: 1) develop a new

information system on export markets; 2) develop a new institution for export promotion; 3) expand the export promotion activities of the Ministry of Industry and Trade, 4) create a "higher export council"; and 5) develop an integrated system for export finance, guarantees, and insurance.

Recently the cabinet has embraced the idea of countertrade. In government-controlled purchasing from outside Jordan, "preference" will be given to those countries which import Jordanian products. In addition the private sector will be encouraged to do the same.

Within the commodity sectors, the Government plans to strengthen private research and development facilities in order to develop new products and improve existing ones. In the services sectors the plan calls for developing local consulting firms so that Jordan can become a regional service center for surrounding Arab countries. Tourism development also is expected to receive high priority.

Another element in the Government's strategy is privatization. Both the Telecommunications Corporations (TCC) and Alia (the Royal Jordanian Airline) are frequently mentioned as candidates. The Government has already taken steps to convert the TCC from a government company to a shareholding company with the intention of eventually selling a portion of the shares to the private sector. In the case of Alia the Government has requested assistance from USAID to help formulate a strategy for partial privatization. Divestiture of other government corporations, particularly those in the manufacturing and mining sectors is reported to be a "medium term objective", according to our recent CIP policy discussions. The primary benefits of privatization are seen as an increase in efficiency and a lowering of costs.

Current government pronouncements on the importance of the private sector, with the possible exception of those on privatization, are quite similar to statements found in previous 5 year plans. It is worthwhile to note also that preliminary projections in the upcoming five year plan envisage a continuing major role for the Government and government-owned enterprises in employment creation, investment mobilization, and GDP growth. Approximately 50 percent of new jobs, 60 percent of investment and 25 percent of projected GDP growth are expected to originate from the Government itself or in enterprises that are largely government controlled.

4. Proposed USAID Strategy

a. During the period covered by this CDSS, USAID's over-riding objective in this sector will be:

* <u>To transform the private sector into the "engine" of sustained economic growth</u>.

This will be accomplished in two major ways: (1) directly through AID resources; and (2) indirectly, through policy dialogue and by demonstrating to the Government the beneficial impact of focusing on the private sector.

b. Policy Dialogue Initiatives: Issues and Concerns: If the private sector is to realize its full potential to revitalize the Jordanian economy, then a number of existing government policies need to be modified. USAID intends to target those areas which are perceived by private sector entrepreneurs and investors to be of most immediate concern. These areas, which have been previously discussed under "Problems/Constraints", are categorized as follows:

(1) Market Entry Restrictions: USAID will seek to ease or eliminate current government controls, and, where appropriate, transfer the role of market entry control from government ministries to private sector professional organizations. The latter might be done for accountants, engineers, and construction contractors.

(2) Inadequate Incentive Structure: USAID will be discussing with the Government a number of policies such as price controls, taxes, and exchange rates which have the effect of either discouraging production for export or discouraging "productive" investment altogether.

(3) Controls of Financial Markets: As mentioned previously, the existing controls on financial markets have tended to discriminate against the private sector in their efforts to obtain investment and working capital. USAID will attempt to make the Government more aware of the skewing effect of such controls.

(4) Government Ownership: Privatization will be a major theme of the USAID policy dialogue. Given the current high level of interest of Jordanian officials in the subject, it is possible that significant progress can be made in this area.

c. Possible AID Project Initiatives

The following is a review of specific types of initiatives planned for each of the categories of constraints previously described (projects which are expected to fund the initiatives are noted in parentheses):

(1) Government policies: USAID's objective is to establish policy framework which is conducive to private sector growth. This will be accomplished through policy dialogue supported by specific studies, and institutional development. Examples of specific initiatives are:

(a) Studies of such topics as market entry restrictions, price controls, import monopolies, and controls on financial markets (Technical Services and Feasibility Studies V and/or Private Enterprise Technical Resources Assistance (PETRA).

(b) Fiscal policy analysis will be the focus of a single, new project, which will examine the entire range of revenue collection measures and their impact on private sector investment and production decisions. It will also provide the means for implementation of study recommendations (Fiscal Policy Analysis).

(c) Training will be provided for policy makers and potential business leaders in areas specifically related to the private sector (Development Administration Training).

(d) Funding will be provided for the development of private sector interest groups such as a consumers' group, a manufacturers' association, and a private sector association. The groups would not only lobby for the private sector but would also provide other services to their members (Industrial Development and PETRA).

(e) CIP-mandated macro-economic policy discussions will be continued in accordance with CIP agreement (CIP).

(2) USAID will assist the GOJ to reduce its ownership of commercial enterprises through a program of "privatization" that will include initiatives such as:

(a) Assisting the Ministries of Finance and Industry to develop a viable policy for privatization (TSFS V).

(b) Assisting Government-owned companies to develop and implement privatization programs. (PETRA and PRE's Privatization Project).

(c) Encourage privatization through the review/approval of public sector CIP transactions.

(3) Financial Constraints: The objective is to improve financial intermediation by transfer of technology, institutional development, and selected infussion of funds. Examples of specific initiatives are to:

(a) Focus on mobilizing capital for new products and new ventures in the private sector (Venture Capital/Private Development Bank).

(b) Provide a wide range of technical assistance and training to Intermediate Financial Institutions in such areas as project lending, cash flow and risk analysis, and secondary markets for bonds, loans, and mortages. (PETRA).

(c) Assist the Amman Financial Market by providing technical assistance and training for such new services as mutual funds and bond trading. (PETRA).

(d) Improve financial disclosure through technical assistance and training for a new financial accounting standards association (PETRA).

(e) Improve the rate of disbursements for the CIP by fine-tuning the terms and conditions of the program. (CIP).

(f) Provide funds for private sector construction for low income housing and for mortgages for low income families. (HIG).

(4) Assist firms in developing new products, improving product quality, and reducing costs through a program designed to reduce production constraints by emphasizing institutional development, and transfer of technology. Examples of specific initiatives are as follows:

(a) Management Development: USAID's existing project will be continued and expanded to increase the quantity and quality of professional business managers (Management Development).

(b) Productivity Centers: Centers will be established to assist manufacturers through a wide range of technical information and assistance. (Industrial Development)

(c) Industrial Engineering, Maintenance and Design Development: Similar in concept to the Management Development Project, this activity will fund the development of a new program at the University of Jordan in industrial engineering, maintenance and design (Industrial Development).

(d) Product Standards Development: The Royal Scientific Society and the Standards Department of the Ministry of Industry will be assisted in upgrading their current efforts. (Industrial Development).

(e) Services Sector: Productive services, especially those with export potential, will be the focus of a single, new project. (Service Sector Development).

(f) Small Entrepreneurs Development: This new project will involve entrepreneurial training, establishment of new improved financing mechanisms, and regional planning in support of small enterprises. (Small Entrepreneurs Development)

(5) Weak Private Sector Business Organizations: USAID's objective is to strengthen existing organizations and/or create new organizations where appropriate in order to represent members before government policy makers, provide technical assistance and training, and act as an information exchange and referral service. Examples of specific initiatives are:

(a) Integrated Jordanian Business Forum: Assistance will be provided to the existing Jordan Businessman's Association or to another new organization to coordinate private sector interests in public policy making. (PETRA).

(b) Manufacturers' Association: The new organization will not only represent the members' public policy interest but also provide technical assistance and training to members, most probably through newly established productivity centers (Industrial Development).

(c) Exporters' Association: The association, still in the formative stage would receive assistance from AID to provide information on export markets, consolidate shipments, and lobby before the Government.

(6) Inadequate Marketing and Promotion of Jordanian Products, Services, and Investment Opportunities: USAID's objective is to improve the abilities of private businesses, private organizations, and government organizations in marketing and promotion of products, services, and investment opportunities. Examples of specific initiatives are:

(a) Productivity Center: The center will assist local businesses in developing marketing plans and will provide information on possible export markets (Industrial Development).

(b) Feasibility Studies: Technical assistance will be provided for firm level analysis of the feasibility of new products and markets (PETRA).

(c) Exporters Association: Technical assistance and training will be made available for a new association which will provide such services as information, consolidation of shipments, and representation of members interests in public policy making. (PETRA).

(d) Investment Promotion: A limited amount of funding will be provided to government agencies and local businesses deemed capable of launching investment promotion efforts. (PETRA)

(7) Negative Perceptions of the Private Sector: USAID's objectives are to increase the social conciousness of the private sector. Examples of specific initiatives are:

(a) Consumers Groups: The formation of such groups will be encouraged by USAID in order to increase the responsiveness of the private sector to consumer needs. (PETRA)

(b) "United Way": USAID will assist interested private companies in the formation of a "United Way" type charity appeal.

(8) Inadequate Public Services and Facilities: USAID's objective is to improve the efficiency of public sector services and facilities related to private sector growth. Examples of specific initiatives are:

(a) Diagnostic studies, technical assistance and training will be provided for public sector institutions such as the Customs Department, the Port Authority, and the Licensing Department in the Ministry of Industry (TSFS)

(b) CIP and counterpart regenerations will be utilized to relieve selected high priority physical constraints.

B. AGRICULTURE

1. Sector Overview

The East Bank of Jordan has a land area of about 9.7 million hectares, about 800,000 hectares of which receive more than 200 mm of annual rainfall and are considered suitable for agriculture. Rainfed lands constitute the largest proportion of total arable land (91 percent). The remaining 9 percent is partially or fully irrigated and lies mostly in the Jordan Valley. Landholdings in Jordan are small and fragmented, about 50 percent are less than 3 hectares and 65 percent are less than 5 hectares. There are approximately 62,000 farmers of which 50 percent are dependent on farming as their primary source of income. The farm/rural population is estimated at 525,000.

In the early 1950s, agriculture represented approximately 23 percent of the GDP and employed about one third of the labor force. In 1984, agriculture represented approximately 7.5 percent of GDP and provided income and employment for 10 percent of Jordan's labor force. The agricultural sector for the period 1976-80 grew at a rate of 5.7 percent p.a. However, during the 1980's the agriculture sector grew at 2 percent p.a., which was lower than the economy as a whole.

a. Crop Production

The principal areas are the Jordan Valley, mainly irrigated, and the Highlands, where rainfed agriculture predominates.

(1) Irrigated Agriculture Subsector

Of the 39,000 hectares irrigated, 66 percent is under surface irrigation and 34 percent is under pressurized systems such as drip and sprinkler. About 65 percent of irrigated lands are located in the Jordan Valley where 74 percent are surface irrigated and the rest use a pressurized irrigation system.

Development of the irrigated facilities has resulted in a significant change in the structure of Jordan Valley agriculture and there are now approximately 13,000 plastic greenhouses in the Valley. The major irrigated crops are vegetables which account for 77 percent of the irrigated area, and citrus which accounts for 18 percent. The Jordan Valley produces 40 percent of the total agricultural production of the country and 70 percent of total agricultural gross value. There are approximately 6,000 land holdings in the Jordan Valley with an average farm size of 4 hectares.

Irrigated agriculture in the Highlands represents a small but growing segment of the cultivable area of the Highlands. Major crops cultivated under irrigation in the highlands are spring and summer vegetables and temperate fruit.

(2) Rainfed Agriculture Subsector

Jordan's rainfed agriculture subsector is a traditional agricultural system using low input technology. It suffers from sharp annual fluctuations in crop production, primarily due to the high rainfall variability. The major crops are wheat, barley, pulses, vetch and perennial tree and vine crops. There are about 45,000 land holdings and 110,000 parcels of land in the rainfed subsector. The average size of each holding is about 8 hectares. Since rainfed agriculture accounts for 60 percent of total production, adoption of improved technology is of major importance for increasing the national food supply, reducing Jordan's dependence on imported foods, and in creating new employment opportunities.

b. Livestock

Livestock accounts for 30 percent of the agricultural gross value. Sheep and goats make up 90 percent of the livestock numbers. The chief characteristic of the livestock industry is the large animal population relative to the feed supply.

Many years of mismanagement and overstocking of rangelands and periodic use of rangelands for cereal production have resulted in the destruction of most of the native perennial grasses and other forage. Nearly all of the rainfed region is used for grazing sometime during the year. The failure to improve the forage supply either by sowing improved species or better management is largely related to the system of tenure and land use policies which leaves little or no individual incentives for improvement or better management of the open grazing lands.

c. Agribusiness and Marketing

A majority of the agribusiness firms service the irrigated agriculture and livestock subsectors. The agricultural input market (mostly imported items) has developed rapidly during the last ten years with approximately 90 firms servicing vegetable and citrus growers in the irrigated subsector. Besides supplying inputs, many of the private firms offer technical advice and carry out demonstrations in order to encourage farmers to adopt improved technology.

The role of agribusiness in the dryland subsector is almost nonexistent, primarily due to the low profitability and associated high risk. The maintenance of agricultural machinery is poor and knowledge of what types of machinery are best suited is lacking.

Agricultural marketing has increased in importance since the early 1970's with expanded production of fruits and vegetables under irrigation. The rapid increase in the production of these highly perishable products has put pressure on the limited marketing facilities. Also, there is increasing competition in traditional markets, further exacerbating Jordan's marketing problems.

Most of the fruits and vegetables must be routed through the Amman Central Wholesale Market, which handles approximately 80 percent of the marketable products. The food processing industry has not developed very rapidly and only a small amount of domestically produced vegetables are processed.

d. Agricultural Education, Research, and Extension

The University of Jordan has graduated 649 BSc and 54 MSc students since 1978. Other institutions involved in technical training of agricultural skilled workers are two junior colleges and two vocational training centers graduating approximately 80 and 100 students annually, respectively.

The University of Yarmouk is planning to develop a Faculty of Agriculture which will specialize in veterinary science, range management, and aquaculture science at the graduate level. Yarmouk may eventually develop an undergraduate program.

With development of the Jordan Valley, plastic house culture, and expanded poultry production, the demand for semi-skilled and skilled workers has increased in many agricultural areas and particularly in water and irrigation management, intensive greenhouse production, citrus production, poultry production, and agricultural services.

The past three national development plans have identified agricultural research and extension as major constraints to improving agricultural productivity. Jordan's agricultural research has been constrained by the lack of a clear mandate as to who is responsible for research. The poor adoption and dissemination of knowledge and technology is due to a weak national research and extension system.

2. <u>Sectoral Constraints on Development</u>

Major constraints to the continued growth of the agriculture sector will be discussed by subsector in the following sections of this assessment.

a. Crop Production Constraints

(1) Irrigated Agriculture Subsector

Crop yields on irrigated lands in the Jordan Valley continue to remain low and the potential gains in drip irrigation have not yet been fully realized. Among the constraints responsible for inhibiting maximum agricultural production are:

* Poor information concerning land use capabilities, soil type and structural characteristics, water holding capacity, and soil depth;

* Inefficient water management;

* Lack of trained irrigation and crop water management advisors;

* Lack of specific research information on crop diversification, fertilizer needs with respect to crop, soil and climate, crop water requirements and water scheduling, control of soil and plant pests, plastic culture management, and labor requirements;

* Lack of coordination between research institutions, quasi-governmental agencies, private sector, and farmers; and

* Lack of an effective information dissemination system to keep farmers, agribusiness firms and other supporting services informed.

(2) Rainfed Agriculture Subsector

The lack of infrastructural development and low productivity in the rainfed subsector have contributed to its poor growth. The major constraints, affecting the development of rainfed agriculture are:

* The highly variable and limited rainfall which causes low yields in one out of five years;

* The use of small plots and/or highly fragmented land, which is a factor in the low adaptation of improved technologies;

* The lack of up-to-date research information concerning improved technologies and cropping practices; and

* The lack of an effective extension service to disseminate agricultural information.

b. Livestock Production Constraints

Meat production is low due to the following constraints:

* lack of sufficient high quality forage to support the current livestock population;

* poor animal nutrition, disease control, lambing and forage management;

* lack of government planning and policies regarding land use (cereal production on marginal lands) and overgrazing; and

* lack of applied research information and dissemination.

c. Marketing Constraints

Marketing problems are due to the following constraints:

* Inefficient handling, grading, packaging, storage, and produce preservation;

* inadequate communications linking farmers to existing or potential markets;

* lack of applied marketing research designed to provide timely information concerning daily prices and quality of agricultural produce sold at regional markets;

* shortage of personnel with appropriate technical expertise on marketing issues;

* poor coordination and use of marketing facilities located in the Jordan Valley (and the requirement to market most agricultural commodities through the Amman Central Wholesale Market); and

* lack of a consistent and clear national marketing policy.

3. Government's Sectoral Strategy

In its draft Five-Year Plan for Economic and Social Development, 1986-1990, the Government outlined the major objectives of its strategy for the agriculture sector as follows:

* Conserving basic agricultural resources and protecting the environment by curbing the degeneration of these resources and their optimum economic utilization;

* Increasing returns on agricultural investments and increasing farmer incomes (and those of others working in the sector) to encourage further investment in the sector and to enable farmers to remain on their land; and

* Increasing the average income from agriculture from JD 101.3 million during 1981 to JD 177.8 million during 1986-1990 at constant prices.

The Government's means of achieving the above stated goals are to:

* Increase cultivable hectares by 8.5 percent;

* Increase the amount of land irrigated in the Highlands;

* Improve the transfer of technology, research and extension;

* Improve agricultural support services to the poultry, agricultural processing and marketing sub-sectors; and

* Start harvesting the production of fruits and olive trees planted during 1981-1985.

There are a number of major donors presently helping Jordan in the agriculture sector. They include: the U.S., West Germany, Italy, Japan, and Kuwait. International and regional donors include the U.N. World Food Program, the U.N. Environmental Program, the International Fund for Agricultural Development (IFAD) and several Arab Funds.

4. Proposed USAID Strategy

USAID's strategy in agriculture covers (i) irrigated agriculture, (ii) a new emphasis on marketing, and (iii) continuation of a comparatively recent involvment in modernization of rainfed agriculture through development of Jordan's institutional base in research and technology transfer.

a. Irrigated Agriculture

For a number of years USAID's strategy in the agriculture sector has been concentrated on the Jordan Valley, the resource with the highest potential economic payoff. Significant amounts of U.S. technical and capital assistance (including financing the construction of the East Ghor Canal) have been provided to develop the infrastructure needed for the rapid growth of this fertile area. Basic techniques of irrigated and plastic house cultivation have been mastered and Valley farmers have rapidly increased their production of fruits and vegetables.

As outlined in the constraints section above, production in the Valley is now, however, experiencing what might be termed "second generation" problems or constraints, notably (1) marketing problems and depressed prices stemming in part from overproduction of certain produce and lack of crop diversification, and (2) poor growth in yields stemming from poor and/or ill-informed practices in crop water management and scheduling, fertilizer application, and control of soil and plant pests. To maximize the return of past AID investments in the Valley and to help Jordan insure high returns from planned future investments in irrigation in the Ghors, USAID's strategy will focus on these "second generation" problems. On the production side, USAID plans to extend its research and extension intervention in the Valley, helping to develop research and extension capabilities related to crop diversification, water, fertilizer, pesticide and herbicide use. The extension of the Jordan Valley Agricultural Services Project by two years will enable this entity to become fully institutionalized prior to becoming a part of the National Center for Agricultural Research and Technology Transfer, the establishment of which is being assisted by USAID's Highland Agriculture Development Project. Ultimately, the Center will coordinate research activities and establish policies and programs for the Valley as well as the Highlands. A large scale USAID impact evaluation of AID and other donor investments in the Valley is scheduled for FY 1987 and is expected to help shape the nature and extent of required future research and extension interventions in the Valley.

b. Marketing

Initiatives in marketing will also be undertaken to help address the "second generation" problems that have emerged in the Valley and, to a lesser extent, to assist in the development of Highland agriculture.

The USAID has identified the lack of clear coordination of marketing functions and activities as a formidable barrier to the development and expansion of new market outlets and the development of new crops. There are five primary constraints to agriculture product marketing which are particularly acute and which the strategy proposes to address:

(1) Government administered price controls;

(2) The requirement for much of the agriculture produce to be channeled through the Amman Central Wholesale Market;

(3) Lack of a central coordinating institution to collect, analyze, and disseminate marketing information to private and public sector entities;

(4) Shortage of personnel with technical expertise on various aspects of marketing;

(5) The inefficient handling, packaging, storage and food processing.

The USAID believes that the assembly, handling, distribution and processing of agricultural products are areas best suited to the private sector. Therefore, the strategy calls for AID involvement at the market information stage where technical assistance and training can be of value in improving the collection, analysis and dissemination of relevant information at all levels of the food marketing system. Coupled with this would be exploratory work in the areas of post-harvest technologies and food processing as well as support for activities to stimulate increased private sector participation in marketing.

In addition, the strategy will encourage the Government to decentralize the distribution of agricultural produce. The agricultural products of the Jordan Valley and the West Bank and Gaza should be assembled in the Jordan Valley and then distributed to other regional markets. Jordan has four large marketing facilities in the Jordan Valley that are not being used. These facilities could be sold or leased to private sector entities for operation as assembly/processing points. A planned agribusiness survey will further identify potential opportunities for food processing, including freezing and juice making.

Policy dialogue issues concerning market reforms will focus on the Government's price controls on agricultural produce, controls on market channels and the processing of produce, and the requirement that the majority of the agriculture produce pass through the Amman Central Wholesale Market in order for it to be taxed. This tax does not support the improvement or expansion of the food-marketing system but goes into the Municipality of Amman's general fund.

c. Highland Agriculture

USAID's involvement in rainfed agriculture in Jordan is recent and is directed at the unexploited resources and investment opportunities in the Highlands. The modernization of the rainfed sector will require the active involvement of the private sector in providing appropriate production and livestock inputs, custom farming services, and credit. The public sector's involvement will be in the development and dissemination of information and the testing and development of appropriate technologies designed to address specific ecological and socio-economic conditions. Through the existing Highland Agriculture Development Project, USAID will assist Jordan to develop an effective, self-sustaining national institutional base to carry out diversified crop and livestock research as well as a means to transfer this information to farmers and agribusinesses. This will be done through the establishment and strengthening of the National Center for Agricultural Research and Technology Transfer and four Regional Agricultural Service Centers.

Research in dryland farming of cereals and pulses has been extensive in the Near East, and ICARDA, located in Syria, has been the international research center in this area. Other donors have also been active within Jordan, with the Australians, for example, field testing cultivation practices and rotations for cereal, pulses, and forage crops. To modernize rainfed agricultural production, the most immediate need is a focus on adaptive research and demonstration. However, Jordan's agricultural research effort has been constrained by the lack of a clear mandate on who is responsible for limited research funds and capacity. A weak extension system and low level of private sector input suppliers for rainfed agriculture has, in turn, resulted in the poor adoption and dissemination of knowledge and technology generated by the international institutions and foreign universities.

To encourage diversified crop research and technology transfer, the USAID will continue to support the development of a coordinated research and information dissemination effort among the various local institutions. USAID policy dialogue will focus on encouraging the GOJ to establish an administrative and financial structure, as well as procedures, conducive to an efficient national research and technology transfer program. The Ministry of Agriculture is not the sole institution involved in agricultural development. Private and semi-public groups should be involved in voicing their concerns in how research is planned, evaluated, and performed, and how the results are to be disseminated. This is urgently needed in view of the current institutional fragmentation in planning, implementing and funding of agricultural programs.

C. WATER AND WASTER

1. Sector Overview

a. Description

The water sector as described by the Water Authority Law of Jordan includes surface and groundwater resources from all sources; any structure or organization to regulate, transport, process, and any project whether public or private concerning the domestic, industrial, agriculture or miscellaneous use of water.

b. Geography and Climate

The Kingdom's territory on the east bank of the Jordan River consists of about 91,000 sq. km. The principal geographical features of the land are the Red Sea/Jordan Rift Valley and the high plateaus and desert to the east of the valley. Much of the rift valley is well below sea level, 400m at its deepest point. To the east, the land rises steeply to a wide plateau whose average elevation is about 800m. Peaks in the southern part rise to more than 1,500m. The highland region of Jordan is characterized by a moderately temperate climate and rainfall barely sufficient to support agriculture. Further east, rainfall decreases rapidly as the land slopes gently to the Arabian Desert. About 80 percent of the Kingdom's territory on the east bank of the Jordan consists of steppe and desert where water is only minimally available. This severely limits habitation and most forms of economic activity.

c. Overall Water Resources:

Over the years, a number of studies have been conducted to verify the existence of Jordan's water resources in terms of quality, quantity and the economic viability of extraction and use. These studies, have concluded that Jordan's total water resources are not sufficient to support the requirement for water even up to the end of the 1980's. They also confirm that Jordan's most severe and limiting constraint to national development is the lack of usable water for domestic consumption, industrial use and for agriculture. The most urgent current need is water for agriculture and for domestic use in the Kingdom's rapidly growing urban centers. The lack of wastewater collection systems and treatment facilities has exacerbated this already serious situation. The consequences of this compounding situation are evidenced by serious water-related health problems, a less than adequate quality of life and constrained industrial and agricultural production.

d. Surface Water Resources

Nearly two-thirds of Jordan's surface water resources exist primarily along the northern border, and in some of the wadis (seasonal streams) flowing into

the Jordan River. Jordan has traditionally used surface water almost exclusively for irrigation. Exploitation of surface water for domestic and industrial use has not occurred to any great extent, due primarily to the sporadic flow patterns and the proprietary needs of agriculture. Nevertheless, surface water will have to be tapped and treated more extensively in the future as Jordan's burgeoning population demands more water for domestic consumption.

The Yarmouk River, the largest source of surface water, provides almost half of the Kingdom's resources. This river, after allowing for some 170 MCM/year for downstream users in neighboring countries, is diverted through the East Ghor Main Canal to supply water to the farmers in the Valley. Annually some 140 MCM of water from the Yarmouk River is diverted for agriculture in the valley.

The six riftside wadis which are crossed by the canal, provide an additional fourth of the country's surface water resources. The Zarqa, the largest of these streams, originates in the uplands and after flowing through the heavily populated cities of Amman, Zarqa and Ruseifa flows down to the Jordan River. Due to the unfavorable topography in the uplands, these surface flows are not easily tapped until they reach the lower sections of the wadis. Thus, they are used primarily to supplement irrigation activities in the Valley.

Another fourth of the Kingdom's surface water occurs in the wadis of the Dead Sea Basin. These wadis flow through very rough, rocky terrain where the potential for agricultural development is quite limited. These flows, therefore, are only marginally utilized. A small amount of surface water emanates from the Wadi Araba Basin located to the south of the Dead Sea. At present this water is used for agriculture along the banks of the Wadi Araba.

Development of Jordan's surface water sources, e.g., the heightening of the King Talal Dam on the Zarqa, will play an important role in meeting the nation's increasing need for water. However, it should be noted that the water quality, rainfall variability and evapo-transpiration will continue to be major constraints to the utilization of these surface flows. The Government has been constructing a number of impounding reservoirs with a total storage capacity of about 70 MCM on major wadis in the Eastern Jordan Valley Basin. The Government plans to construct additional storage facilities with an estimated capacity of about 34 MCM. This added storage capacity will increase Jordan's yield of suitable surface water flows by 50 to 100 MCM per year.

Construction of a dam at Maqarin on the Yarmouk River could yield Jordan an additional 200 MCM in surface flows each year. This dam would substantially improve the utilization of Yarmouk water in the Valley and would provide assured supplies of drinking water for the northern region of Jordan. In addition, such a dam could generate about 66-KV in additional electrical power. However, squabbling among the riparian states who would benefit from such a project has precluded its implementation, at least for the foreseeable future.

e. Groundwater Resources:

While Jordan's surface water potential is fairly well understood, much less is known about the Kingdom's groundwater resources. In recent years, the rising demand for water has caused the Government to seek groundwater sources. Accurate and timely knowledge of the entire groundwater resource base from the surface to its deepest depth is essential before the Government can

knowledgeably plan for the wise management of total water resources. It is also necessary to understand the relationship between groundwater and surface water, recharge requirements from rainfall and surface flows, and the ability to store surplus water. As more and more of Jordan's groundwater is tapped, it will become even more important to protect this fragile resource. A major effort is needed to locate, measure and define groundwater quantity and quality. Failure to vigorously pursue the collection of groundwater data may result in: (a) a continued and accelerated depletion of the currently used aquifers to the extent that they may be severely damaged or rendered unuseable by saline migration and/or excessive mining; (b) a search for more expensive alternate water sources; and (c) a reduction in the amount of water allocable for agriculture, with subsequent negative effects on Jordan's balance of payments.

A substantial amount of data concerning the groundwater potential of the Jordan Valley, Zarqa, Yarmouk and Azrak drainage basins has already been amassed under an A.I.D.-financed project. While a great many wells have been drilled throughout this region and studies of these test holes have been made, a great deal of work remains to be done before an extensive and accurate data base will be in place that will yield readily retrievable information to national water use planners. However, the collection of groundwater data is continuing and Jordan is slowly coming to better understand its major aquifer systems. The most important is the Amman-Wadi Seer system, which extends throughout the country and forms the top layer of Jordan's uplands underlying a thin mantle of soil in most places. This aquifer has good recharge due to the relatively abundent rainfall in the uplands. Other aquifers, such as the Karnub/Zarqa system and a basalt layered system from the Syrian Jebel Druze to the Azrak and Wadi Dhuleil region are massive and could provide substantial groundwater resources. Deep drilling and pumping costs make these aquifers economically unattractive at this time, but they are there and could be tapped in a water shortage crisis.

f. Organization

The creation of a single entity responsible for water resources policy and development was previously a major focus of USAID policy dialogue. As a result of this emphasis by USAID and others, the Water Authority (WAJ) came into being on January 15, 1984. The Water Authority was formed by combining the Amman Water and Sewerage Authority (AWSA), the Water Supply Corporation (WSC), the Water Directorate of the Natural Resources Authority, the various Water Districts under the Ministry of Municipalities, and the Water Supply Projects under the Jordan Valley Authority.

In addition to policy and development, the WAJ has been given responsibility for the operation and maintenance of all water and sewerage systems in Jordan. However, the Jordan Valley Authority (JVA), because of its basic responsibilities for the development of the Jordan Valley and the Southern Ghors, where water is the primary factor, continues to play a significant role in the Water Sector. JVA's concerns are the development and use of water for agriculture and, to a lesser degree, for domestic and industrial use.

2. Sectoral Constraints to Development

a. General

Air, land and water are the major components for survival of life. Since Jordan has air and sufficient land area for its present and forseeable

population, the major constraint is insufficient water to serve its domestic, agriculture and industrial needs for development. For Jordan water is life itself.

b. Insufficient Water Supplies

Based upon available but insufficient data, it is estimated that Jordan has only 627 MCM of safe water available for total annual consumption. Other estimates indicate that 434 MCM of water were consumed during 1980 (domestic, industrial and agricultural uses) and that 795 MCM will be required by 1987. This 1987 projection is based upon, inter alia, higher than actual present per capita domestic consumption levels and efficiency improvements in the agricultural uses of water.

c. Lack of Available Financial Resources

The development of additional water resources requires time and investment in infrastructure. The amount of investment required at one time is generally outside the GOJ internal budget and depends upon external financing. With the reduction of available external financing, this presents a formidable constraint in the development of Water Resources.

d. The Price of Water

The price of water as expressed in the current tariff structure is not the real price (market determined). The water rate for Jordan Valley agriculture of 3 fils per cubic meter is far below actual cost when operation and maintenance costs of approximately 10 files per cubic meter are added. The water tariff for domestic and industrial users (same rate) appears high at approximately $ 3.31 per thousand gallons when compared to a Southern California rate of $ 1.07 per thousand gallons.

3. Government's Sectoral Strategy

The Government of Jordan continues to place high emphasis on the development of its limited water resources.

The 1986-1991, five year plan budgets JD 337 million for the water sector of which 19 percent is allocated for irrigation projects, 21 percent for dam projects (agriculture and domestic), 4 percent for water resources investigation, 24 percent for domestic water supply networks and 32 percent for completion of ongoing sewerage projects. The GOJ plan calls for 58 percent of the above JD 337 million to be in the form of foreign assistance.

With this budget GOJ plans to complete the sewerage collection and treatment facilities for Amman, Irbid, Zarqa, Mafraq, Tafilah, Karak, Madaba and other major towns. In addition the 17 villages around Irbid, the towns of Sahab and Mahess near Amman and all settlements throughout Jordan with a population of over 2,000 are planned to have sewerage services.

It is expected that 70 percent of the population will be connected to sewers and that 99 percent of the population will have access to potable water by the end of the decade.

Also, during this period the GOJ plans to undertake a major project in the Wadi Araba region to develop groundwater resources and to introduce irrigated agriculture. It also expects to complete the Wadi al Arab project, extend the East Ghor canal by 14.5 km and improve existing irrigation systems.

Other donors participating in the sector are the World Bank (water and sewerage), the KFW (sewerage and technical assistance), Islamic Development Fund (irrigation), Japan (irrigation and hydrogeological studies) and the European Investment Bank (water and wastewater).

4. Proposed A.I.D. Strategy

a. Policy Dialogue Initiatives

As part of the mission's current portfolio, emphasis will continue to be placed upon institutional and human resources development. This effort addresses such items as the financial and institutional viability of WAJ, training, management, functional statements and position descriptions.

Technology transfer will aslo continue to be emphasized especially in the area of contracting methods and procedures, engineering design, construction inspection, and developing the capabilities of construction contractors.

AID is continuing to provide an opportunity for small private construction firms to participate in the construction of facilities in the water sector by dividing projects into smaller components. This permits smaller companies to undertake contracts within their organization, financial, equipment and staffing capabilities.

b. Possible A.I.D. Project Initiatives

USAID will propose, (1) to investigate and measure the groundwater potential of the southern and southeastern portions of the Kingdom; (2) to update and refine the overall assessment of the demand and availability of water and (3) plans for the most economical use of this limited resource, including distribution and sound fiscal policy. Tariffs and user fees will be integrated within the policy dialogue agenda. Preparations are underway for a comprehensive study of operation and maintenance issues in the water sector which will also address institutional and economic efficiency issues.

D. HUMAN RESOURCES

1. Sector Overview

a. Compulsory Cycle Education

Education is compulsory for the first nine years of formal education, comprising the primary cycle (grades 1 through 6) and preparatory cycle (grades 7 through 9). Reflecting the breadth of extension of this level of education to the Jordanian population, some 90 percent of the six to fourteen year old age group are enrolled in the compulsory cycle. Repeater and drop-out rates are low, 5 and 1 percent respectively, for elementary, and 8 and 6 percent respectively, for preparatory schools. Pre-vocational elements are being added to the compulsory level curriculum. Preparatory school students are required to select a unit of study in one of three occupational clusters; choices include commerce, agriculture or industry. Student performance during the compulsory cycle determines placement within the secondary school cycle, which basically comprises two streams: academic or vocational.

b. Secondary Cycle Education

Roughly 70 percent of compulsory level graduates continue their education with 68 percent of the 15-17 year old age group attending secondary schools,

including the two year trade training centers and the VTC apprenticeship program.

Four-fifths of all secondary school enrollments are in the academic as opposed to the vocational stream. Repetition and drop out rates for academic secondary school students are low: 6 and 10 percent respectively.

For the vocational stream, the repetition rate is also very low, 4 percent. Roughly half of the vocational secondary school graduates enter the labor market at the craftsman level; commerce is the chief area of specialization, accounting for 57 percent of graduates, with industrial arts a poor second at 29 percent. Vocational stream students are eligible for matriculation in:

(1) Two-year trade training centers with a current output of roughly 1800 graduates;

(2) Three-year Ministry of Education (MOE) vocational schools in industrial arts, commerce, agriculture, nursing, hotel administration and postal administration, with a combined total enrollment of some 19,000 students; or

(3) three-year apprenticeship programs furnished by the Vocational Training Corporation (VTC), which have a current enrollment of some 6,000 and yearly output of some 1600.

c. Higher Education

Performance on the general examination offered at the end of the secondary school cycle determines whether a student may proceed on to a university level education at one of Jordan's three universities, or qualify for entry into one of the 47 community colleges. Approximately 60 percent of secondary school graduates go on to higher education within Jordan.

Jordan's community college system, comprised of 26 public and 21 private colleges, is intended to prepare graduates for entry into the labor market at the technicial or mid-skill level. Some sixty technical specializations are offered, ranging from accounting, social work, and electronics to teacher training and computer science. The greatest proportion of students are enrolled in teacher training (10 percent for males and 63 percent for females), followed by commercial professions (52 percent for males and 23 percent for females) and engineering professions (30 percent for males and 4 percent for females). Community colleges take in some 20,000 new students yearly, but only 8,000 or so annually complete the two to three-year programs with passing grades on the comprehensive examination. The causes for this high attrition rate are not known; use of community college enrollment to defer mandatory conscription into the military may be one possible explanation. At over 40 percent of total enrollment, the proportion of women in community colleges is high. Community colleges are not intended as stepping stones to university entrance, and Jordanian universities are proscribed from accepting community college graduates. Nonetheless, many community college students, perhaps as many as 20-30 percent, use their community college standing to gain entrance to foreign universities.

The community college system accounts for roughly 65 percent of the student intake in technicial training programs and thus occupies a strategic position in the supply of technicians for industrial establishments in Jordan as well as the region. In their course offerings, the private community colleges appear to be more responsive to market demand, but pressures to contain costs

have limited their capital investments and willingness to pay salaries for quality teaching staff. Moreover, the rapid expansion in both the number of institutions and enrollments have made it difficult for facilities and equipment to keep pace with student needs.

Enrollment in Jordan's three universities (Yarmouk, the University of Jordan, and Mut'ah) totals some 23,000, of which 39 percent are women. Principal fields of study are liberal arts (22 percent of total enrollment, economics and business administration (18 percent of total enrollment), education (7 percent of total enrollment), engineering (11 percent of total enrollment),and agriculture (4 percent of total enrollment). The annual output of university graduates is 3,400.

Jordanians enrolled in foreign universities number some 50,000, with 30 percent of such enrollments accounted for by U.S. institutions of higher education. Jordanians enrolled in Eastern European institutions account for 20 percent of the foreign student population, those enrolled in Western European a further 12 percent. Expenditures by such students overseas, estimated at roughly $150 million annually, constitute a major drain on Jordan's balance of payments. The residence and employment intentions of much of this foreign student population are uncertain. The World Bank, for example, projects that only half of Jordanian graduates from foreign universities will enter the domestic labor force.

2. Sectoral Constraints on Development

The youth of Jordan's population, the structure of the educational system and the high levels of enrollment in secondary and post-secondary education set the configuration of Jordan's coming unemployment problems. New entrants to the labor force from the educational system, rather than Jordanians returning from work in the Gulf and/or those dismissed from current jobs, will by far be the overwhelming majority of job seekers over the next five years. The new five-year plan for 1986-1990 projects that returning emigrant workers will total but 5,000 annually, or 25,000 over the Plan period. Dismissal of current job holders is not expected to be a major source of unemployment. Graduates and drop-outs from the educational system, on the other hand, are projected to total some 275,000 over the Plan period, distributed as follows:

Graduates and Drop Outs from	Number
Compulsory Cycle	61,000
Secondary Schools	141,000
Post-Secondary	73,000
	275,000

For males, labor force participation rates have been both high (generally exceeding 95 percent until middle age is reached) and uniform across educational attainment levels. For women, however, labor force participation rates have been extremely low (generally less than 10 percent) with low levels of educational attainment, rising to some 30 percent for secondary school graduates, and generally exceeding 80 percent for post-secondary school graduates. These historic trends suggest that female labor force participation rates will rise at higher levels of educational attainment.

Preliminary estimates for Jordan's five-year plan forecast that 202,500 or nearly 75 percent of the graduates and drop-outs from the educational system will enter the labor force. With some four-fifths of secondary school

enrollments in the academic, as opposed to vocational track, and with liberal arts, teaching, and business and commerce being the principal areas of community college and university enrollment, it is clear that the great bulk of new entrants to the labor force will be neither equipped with technical, employable skills, nor inclined to accept jobs involving manual labor.

Estimates of the mis-match between the skills expected to be required by the economy and the skills supplied by the educational system are shown in the graphs on the following page which were drawn from a World Bank manpower analysis. They show a surplus in the supply of labor for teaching and professions (other than health, architecture and engineering), and for skilled and semi-skilled white collar office workers, such as, salesmen, clerks, bookkeepers, telephone operators, office workers in insurance, finance and other business services, draftsmen, and science technicians. Shortages are projected for architects and engineers, to a small extent for high level managers and administrators and for all blue collar workers, ranging from foremen to manual laborers. These projections are, of course, only indicative, and as the World Bank is itself quick to point out, its model does not fully reflect the self-correcting dynamics of labor markets.

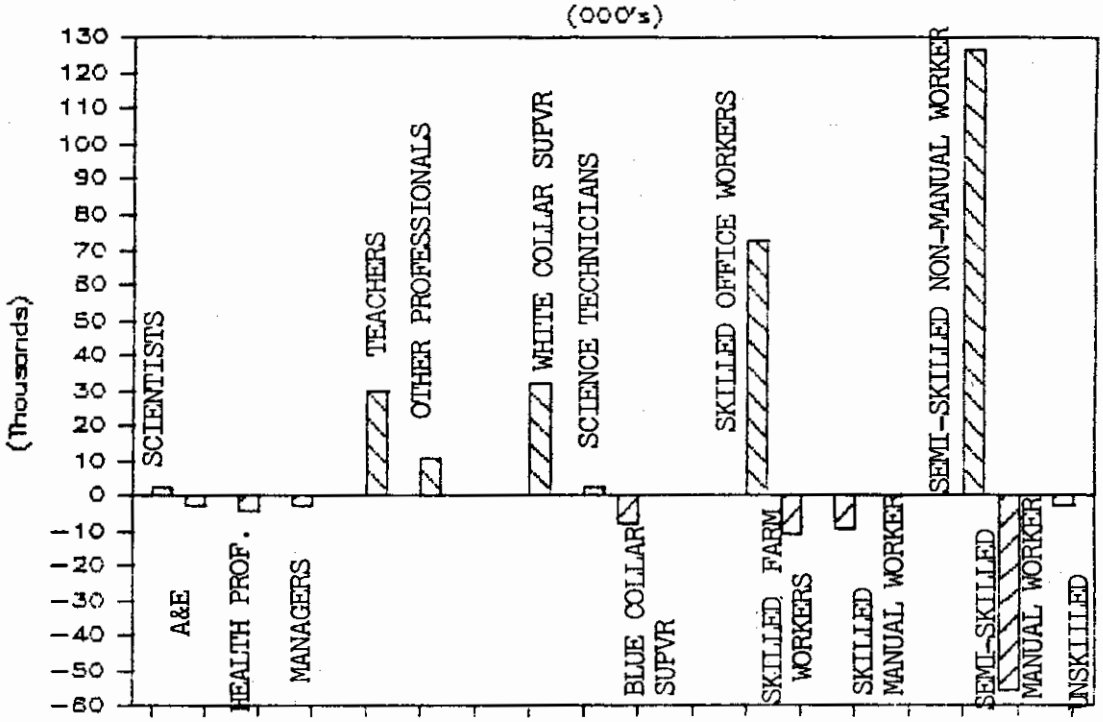
Studies of current earnings by occupation and of future demands for various occupations both within Jordan and the Gulf States are, at best, infrequent, incomplete, and poorly disseminated, accentuating the likelihood of mis-matches between supply from the educational system and the economy's needs. Moreover, the educational system lacks any formal system of job and career counselling. Low pricing of higher education within Jordan has also played a part in the overproduction of post-secondary graduates.

The projected labor shortages in management, engineering and architectural professions, and blue collar workers will have greatest effect on agriculture and industry, which are primarily private sector. In government, shortages of well-trained personnel at middle and upper management ranks and in technical areas are expected to continue to be a problem. Pay scales in Government are generally half those obtainable in the private sector, and between 1981 and early 1985 civil servants forewent any across-the-board wage increse, even though domestic inflation rose by over 15 percent. The March 1985 salary increases, which ranged from 25 percent for low salaried employees to 10 percent for high salaried employees, did little to redress government-private sector wage differentials. With poor pay scales, the GOJ has had difficulty in attracting competent workers, and with higher pay scales outside, many well-trained managers have left Government for the Gulf States or for the domestic private sector. In current recessionary conditions, the Government may be able to attract better qualified applicants. However, with fewer financial resources, Government hiring is likely to expand less quickly, and infusions of new personnel, even though better trained, are likely to be fewer, accentuating the Government's lack of skilled manpower in upper and middle management ranks and in certain technical areas.

Aside from quantity mismatches between the kinds of graduates produced by the educational system and likely demand, there is the problem of the quality and appropriateness to Jordan's future development needs of some of the education being provided. For example, employers' and professionals' associations generally perceive the level of training received by graduates from Eastern Europe as generally inferior or unacceptable. Teaching within the educational system generally emphasizes book learning as against development of conceptual and applied skills. Civil and mechanical engineering have been stressed

MANPOWER SURPLUSES & SHORTAGES

(000's)

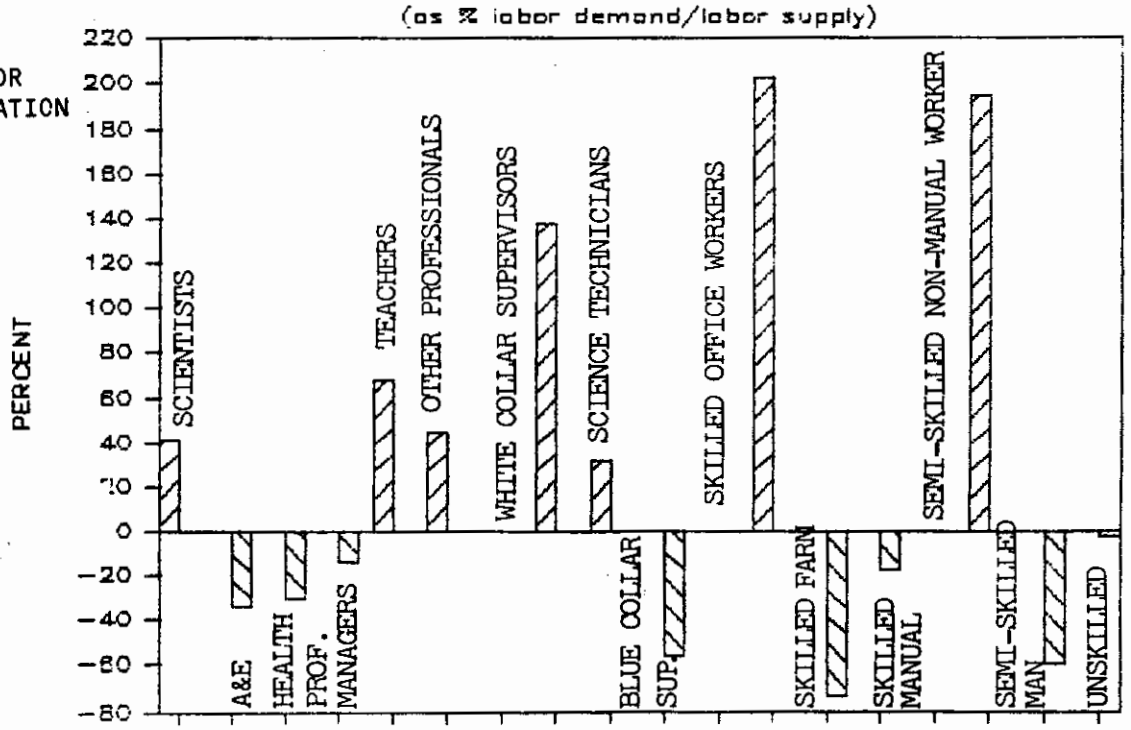


MANPOWER SURPLUSES & SHORTAGES

(as % labor demand/labor supply)

SURPLUS AS % LABOR DEMAND FOR OCCUPATION

SHORTAGE AS % LABOR SUPPLY FOR OCCUPATION



rather than engineering skills in product design, production, and other aspects of industrial engineering relevant to manufacturing development. Marketing, merchandising, advertizing, commercial art, cost accounting and other commercial skills related to efficiency of manufacturing production and sales are poorly taught, if at all. Training is rarely available in fields where Jordan may be able to develop capabilities for the export of services (as in technical maintenance and repair, electronics, instrumentation, aircraft overhaul).

3. Government's Sectoral Strategy

Over the period of the next five-year plan, Jordan is expected to devote increasing attention to vocational education, both building up institutions and facilities for vocational training and attempting to steer potential labor force entrants toward such training. Indicative of this direction was the institution in 1984 of a preparatory stage exam which culls those permitted to continue in the general academic stream (grades 10-12). The Government intends that only 60 percent of the males passing the exam and 70 percent of the females are to be allowed to enter the general academic stream. Vocational educational options are to be open to the remainder. In order to reduce foreign exchange expenditures for overseas university training, Jordan is likely to place a priority on expanding domestic university systems. With regard to the labor market itself, it is expected that proposals to establish employment counselling and referral services at training institutions and in schools are likely to be pursued as are ideas to strengthen current government employment offices. In addition, control over the entry and use of immigrant labor is likely to be tightened with a view to limiting the use of immigrant labor in jobs that might be filled by Jordanians.

Jordan's preliminary Five-Year Plan for 1986-1990 itself calls for a 36 percent reduction in the use of foreign workers from 140,000 to 90,000. Efforts to redirect job aspirations and expectations, through establishment of academic and vocational training tracks, counselling, and other means will run against a strong cultural bias against manual labor and an unwillingess to consider employment that appears to lack stature.

In addition to the efforts of the U.S. in the sector, a number of other donors have provided assistance including the World Bank and a number of European countries. The World Bank has supported expansion of primary and secondary schooling through loans for school construction. In addition, it has been and will continue to be the leading donor supporting vocational education. Its current $11 million manpower development project will help to (1) increase the VTC's annual output by roughly a quarter, (2) establish a nursing and paramedical training institute, and (3) upgrade training programs at the Jordan Institute of Public Administration. Both Western and Eastern European countries continue to provide large numbers of fellowships as reflected in the number of Jordanians enrolled in higher education in these countries.

4. Proposed A.I.D. Strategy

Past A.I.D. programs have assisted Jordan in expanding the reach of the compulsory cycle by financing the construction of primary and preparatory schools and has mounted, primarily for government employees, an extensive participant training program. In addition, in order to improve Jordanian management training, AID is assisting in building up the capabilities of the Jordan Institute of Management and the University of Jordan's Faculty of Economics and Business Administration.

USAID's proposed strategy for the human development sector is designed to serve the following three major objectives:

* Improve market clearing of labor supply and demand;

* Improve the capabilities of higher education to better meet requirements of private sector development; and

* Increase quantity and quality of Jordan's public and private sector managerial and technical manpower in areas critical to Jordan's development needs.

a. Improving Market Clearing

The appropriate pricing of education can play an important part in the process of improving market clearing. Currently, secondary education is free and tuition fees recover only a portion of total education costs in public community colleges and universities. For example, tuition fees cover only 20 percent and 40 percent of budget costs per student at the University of Jordan and Yarmouk university, respectively. Large income tax exemptions for education expenses of dependents, plus the availability of scholarships and loans, (estimated to benefit some 50 percent of students at Jordanian universities), add to the underpricing of higher education. As a result of these inducements, individual calculi of the benefits and costs of pursuing higher education are distorted, creating a larger supply of post-secondary graduates than would otherwise be the case. Recognizing, however, that ability and not income should control access to higher education, better pricing and hence improved resource allocation can still be achieved by raising tutition fees to reflect actual costs while spreading individual payments for such costs over time through a broad student loan program. Raising tuition would also provide universities and colleges with enhanced resources, enabling them to expand capabilities where market demand and the economy's needs are high.

To effect such a change in the pricing and financing of higher education, AID proposes to assist the GOJ in carrying out any necessary studies and to capitalize a student loan program using CIP counterpart fund generations. Other kinds of interventions to improve market clearing may be undertaken under TSFS and DAT, including, for example, assistance for the development and dissemination of wage survey data, forecasting of job opportunities, surveys of employment opportunities in the Gulf, job fairs, and for other activities that will improve the knowledge of the job market at home and abroad by those facing choices about the kinds of education and training to pursue.

b. Improve the Capabilities of Higher Education to Better Meet Requirements of Private Sector Development

As indicated in prior sections, empowering the private sector to become the future source of income and employment growth is the centerpiece of AID's proposed country development strategy. Implementation of this strategy includes a component aimed at ensuring that the educational system furnishes the education and training needed for private sector development, thereby improving the marketability of education and training received by Jordanian students. Current assistance to the Jordan Institute of Management and the University of Jordan Faculty of Business Administration and Economics

represent interventions which have already been undertaken in support of this objective. Among the new initiatives proposed to carry out this strategy are:

* assistance in creating a design and industrial engineering department at the University of Jordan;

* support for retraining programs for surplus or unemployed engineers and other technical professionals; and

* assistance to community colleges to revise or expand curricula and enhance teaching capabilities in technical service fields where Jordan may develop export capacity such as electronics, aircraft and medical equipment overhaul and repair, instrumentation, computer repair; and

* assistance to community colleges and universities to revise or expand curricula and enhance teaching capabilities in commercial areas such as cost accounting, commercial art, marketing and merchandising, purchasing, information systems management.

Other activities in support of the proposed strategy include work with professional associations and educational institutions to prepare and/or revise professional accreditation standards to reflect both international standards and to design curricula and teaching to prepare students for these standards, and the forging of links between foreign institutions and professional associations for technolgy transfer. At present interaction between (1) local universities and community colleges and (2) local industry is both limited and of little utility given the lack of practical, applied content in either curricula or research interests. Thus, support to outreach by institutions of higher education within Jordan to local industry will be supported by USAID wherever possible.

c. Increase Quantity and Quality of Jordan's Public and Private Sector Managerial and Technical Manpower in Areas Critical to Jordan's Development Needs.

With the past rapid economic growth, Jordan's economy has become more fully articulated, and its needs for both management and technical skills more acute and diverse. In the past, participant training was largely programmed for the public sector. Future participant programming will be directed to both the public and private sectors to support upgrading of skills and technology transfer in both sectors. Cost sharing formulas for private sector participants will be developed thereby leveraging a greater number of private sector participants. Priorities for participant training will include:

* Orientation training for public sector employees in private sector development, training in privatization techniques, small enterprise development, venture capital, other areas related to support of private sector development; and

* Training of trainers at universities and community colleges in fields related to manufacturing development, commerce, management, etc.

* Training for the private sector, in product design, marketing, management, venture capital, finance, quality control.

E. HEALTH AND POPULATION

NOTE: Annex B, "Population and Health Strategy Paper", provides extensive background and a detailed description of strategy and project initiatives planned in this joint sector. Due to limitations of space, only a summary statement of the sector overview and strategy is presented here.

1. Sector Overview

a. Health Status

Jordan has made great progress in improving its health status during the last two decades, decreasing infant mortality from 151 per 1000 in 1961 to 60 to 65 per 1000 by 1984, eliminating malaria, and reducing communicable diseases. Life expectancy is 62 years compared with an average of 60 for other middle income countries.

Respiratory infections and gastro-intestinal infections occurring during the wet and dry seasons respectively still account for most childhood mortality and morbidity. Lack of a safe water supply is a major health problem, especially in rural and crowded urban areas. Among adults, there has been an increase in cardiovascular diseases and hypertension. Automobile accidents are a growing concern, ranking sixth as a cause of adult deaths.

Diarrhea and respiratory diseases are the most important causes of illness and death in children under five. Accidents are the main cause of death in children aged 5-14, followed by respiratory diseases. For those over 15 years of age, the main causes of death, in order of importance, are heart and circulatory diseases, respiratory diseases, accidents and cancers.

Infant mortality is still high, 5 to 6 times that of the U.S. Diarrheal and respiratory diseases, malnutrition, accidents and specific infections diseases such as diphtheria, whooping cough, tetanus, measles, poliomyelitis and tuberculosis are all preventable. In Jordan, health education is still in its infancy; immunization coverage is good (about 80 percent); sanitation is variable; nutrition does not seem to be a severe problem; and reproductive hygiene is weak in pre-natal care, post-natal checkups and child spacing.

Jordan does not have adequate data on nutrition, but available data reveals some malnutrition. The 1983 Jordan Fertility Survey showed that 93 percent of children are breastfed, for an average duration of 11 months. Breastfeeding declines with increased education and working women, and malnutrition is often associated with inadequate breastfeeding. Growth charts are routinely used at Maternal and Child Health (MCH) clinics to spot malnutrition.

Parasitic diseases are not a major problem in Jordan. Malaria and schistosomiasis are potential problems and are carefully monitored with only imported cases reported (with some rare exceptions).

There are several geographic factors which make reaching the majority of the population with health services relatively easy as compared to most developing countries. Most of the population are urban (70 percent) and are concentrated in the northwest corner of Jordan between Amman-Zarqa and Irbid. The road network in Jordan is good and constantly being improved.

The climate is reasonably conducive to good health with no great problems with tropical or insect borne diseases. The marked variations in temperature and

dust cause cycles of respiratory illness. The hot dry summers, combined with low water utilization, (40 to 50 liters per day compared to a WHO standard of 80), lead to a sharp peaking of diarrhea during July and August. The climatic factors are no doubt exacerbated by inadequate refrigeration and poor sanitation.

The 1984 population was 2.6 million and is currently estimated at approximately 2.7 million. The crude growth rate is approximately 4 percent (including immigration) while the natural growth rate is 3.4 to 3.7 percent. The total fertility rate is 6.6 and declining more slowly than the death rate, which in the last two decades has declined by half while the fertility rate has gone down from 9. Jordan has one of the world's fastest growing populations and this has significance for both social and economic development and health.

b. Present Health Care Systems

For a health system which serves less than three million people, the Jordanian health care system is quite complex as it consists of not one, but multiple independent sectors providing health care to different populations. The Ministry of Health (MOH), the Royal Medical Services (RMS), the Jordan University Hospital (JUH), and the United Nations Relief and Works Agency (UNRWA) provide services in addition to a growing private sector.

(1) Ministry of Health (MOH)

The Ministry of Health has responsibility for providing the entire Kingdom with: preventive, curative and pharmaceutical services; health education and training; health policy; health legislation; and controlling medical and pharmaceutical services and professions. The MOH provides a large percentage of the preventive services and about 50 percent of curative services to the population. It operates 15 hospitals with 1768 beds. Al Bashir Hospital in Amman is the main teaching and referral hospital for the MOH hospitals. In addition, the MOH provides services through 150 health centers, 245 village health clinics, 100 MCH centers, 57 dental clinics and 5 T.B. centers.

(2) The Royal Medical Services (RMS)

The RMS provides free health services to all military and security personnel and their dependents, covering approximately 25 percent of the population. It provides tertiary care through its main medical center in Amman, the King Hussein Medical Center, secondary care through five smaller hospitals outside Amman, and operates 14 primary health care clinics.

(3) The University of Jordan (JUH)

The JUH provides medical services to all university personnel and families (about 0.5 percent of the population), and serves as a teaching hospital for Jordan University medical and nursing graduates. The hospital is also a referral resource on a fee for service basis.

(4) United Nation Relief and Works Agency (UNRWA)

UNRWA provides primary care to some of the Palestinian refugees. Secondary and tertiary care are provided, mostly by the Ministry of Health.

(5) Private Sector

The private sector is available to all who can afford the fee for service or have private health insurance. This sector accounts for about a quarter of the hospital beds, almost half of the physicians and 40 percent of health expenditures.

Thus, there is much duplication and overlapping with many Jordanians eligible for service from two or three of the health systems.

c. Family Planning Services

26 percent of Jordan's married women reported current use of contraceptive methods (1983). Very short birth intervals, averaging 27 months, were reported. As elsewhere, greater contraceptive use is associated with high age and parity, urban residence and higher educational levels.

It has been estimated that there may be an unmet need for family planning services of about 20 percent of Jordan's women. In a recent study these were defined as not currently pregnant and not desiring pregnancy, but not using any contraceptive methods.

The majority of women obtain their contraceptive supplies from private physicians and pharmacies with only 13 percent using the government facilities of hospitals and MCH centers or clinics. The most popular methods were oral contraceptives and IUDs (about 8 percent each). (See Tables 6 and 7 of Annex B).

2. Sectoral Constraints on Development

a. Population Constraints

Jordan's high population growth, when coupled with Jordan's basic lack of physical resources, compound the Kingdom's population problems significantly. Thus Jordan's major constraints in this sector, according to the "RAPID" model update by The Futures Group (1985), include:

* At the present growth rate, the population of Jordan will double about every 18 to 20 years.

* About 50 percent of the population is under the age of 15;

* By the year 2010, Jordan's population would grow to approximately 6.1 million; the urban population would grow from 1.8 million to 5.1 million).

* A 140 percent increase in all health facilities and personnel would be required by 2010, just to maintain current coverage.

* The number of school age children will more than double from 680,000 to 1.5 million by 2010 requiring twice as many teachers and nearly 3 times the current educational budget.

* The number of new jobs required each year will increase from an estimated 30,000 to 74,000 by 2010.

b. Health Sector Constraints

The principle health constraints include:

* Jordan's primary health care system has not yet reached enough of the population to prevent diarrheas, achieve universal immunization coverage, promote breastfeeding and child spacing and increase pre-and post-natal care.

* There is a basic imbalance between urban and rural health care services and between hospital services and primary health care.

* Less expensive, more effective public health care preventive services (ORT, immunization, etc.) are not considered as important as far more expensive hospital and clinical forms of curative care.

* MOH health centers and clinics are seriously understaffed and underutilized in less populous areas while many of the urban clinics are very overutilized, thus leading to an imbalance of both staff and facilities that increases the cost of health services substantially.

* Health professionals tend to cluster in Amman rather than work in rural and village facilities.

* There is a serious lack of an effective health education and prevention medicine program within the GOJ.

* Many of Jordan's public health care facilities actually duplicate other services being provided by such groups as the RMS and UNRWA; this is both wasteful and costly and leads ultimately to the underutilization of the private sector.

3. Government's Sectoral Strategy

In its draft Five-Year Plan, the GOJ gives priority to health as follows:

* To increasing its overall program of primary health care (PHC) which includes:

  . Expanding child and maternal care;

  . Expanding immunization programs;

  . Improving early diagnosis of diseases;

  . Improving the geographical equity of PHC service distribution;

  . Improving the professionalism of general practitioners;

  . Increasing the numbers and ability of nursing and auxiliary personnel;

  . Increasing citizen participation in health care financing;

  . Enhancing the role of the private sector in the delivery of services; and

  . Improving environmental health protection.

* To establish a comprehensive health insurance system which would incorporate all present plans into one plan by the year 2000.

* To contain the expansion of secondary and tertiary level care by making care available on a more equitable geographic basis, rather than stressing the expansion of additional facilities;

* To continue to upgrade the skills of all personnel and increase the numbers of health staff, except physicians.

Plan attention to population concerns is limited to the following:

* To reduce the natural growth rate of the population in the long-run bearing in mind the necessary social constraints in the short-run.

4. Proposed A.I.D. Strategy

During the period covered by this CDSS, USAID strategy in the population sector will be:

* To assist the GOJ in promoting a decline in the crude birth rate and natural population growth rate through the increased use of contraceptives.

To date, in the face of the complex politics of the problem, USAID has been unable to apply bilateral resources to population activities because of the Government's unwillingness to request assistance. Although there are increasing indications that the GOJ position on population is in transition toward more openness, the USAID has had to depend entirely on AID central and regional funding to support local initiatives. (See Attachment 1 of Annex B for a listing of projects.) What is needed at this juncture is a bilateral project in population which, in effect, will legitimize the activity and rationalize AID's efforts in a more manageable and systematic manner.

USAID considers a realizable goal the targeting of a national contraceptive prevalence of 35 percent of reproductive age women by 1992 (baseline: 26 percent in 1983).

The USAID will attempt to convince the Government to adopt a more favorable health policy on family planning. USAID's current strategy differs from that of the past in that the major justification for a family planning program will be based on health rather than demographic rationale. Recognition of the linkage between high infant mortality and short birth intervals has had greater influence on policy makers than the macro-economic arguments against rapid population growth have had on government planners. (See Figure 1 of Annex B.)

It is clear that prospects for establishing a bilateral agreement with the Government on child and maternal health activities that include birthspacing are more likely than the probability of an AID/GOJ agreement for a demographic project seen as a population growth slowing measure.

Further USAID initiatives to carry out the strategy will be to increase private sector capability to deliver family planning services through the Jordan Family Planning and Protection Association (JFPPA) and social marketing with drug companies and commercial pharmacies; and to encourage the dissemination of more accurate information on fertility control. A final strategic objective will be to create a greater awareness by the Government of population factors in development. (See Grid of Possible Initiatives in Annex B).

In sum, USAID's population initiatives will work towards:

* Convincing the MOH to offer more birth spacing services as a health measure;

* Strengthening the private sector to maximize its involvement in actual contraceptive product and service distribution;

* Influencing public opinion, through Jordan's mass media and organized public health education, to adopt more positive attitudes toward family planning; and

* Convincing the Government to devote more resources to population issues by establishing a vigorous Secretariat to the National Population Commission and formulating a more progressive population policy.

USAID's strategy for the health sector will be:

* To continue to assist the GOJ to strengthen its primary health care program.

USAID plans to assist the GOJ to improve its PHC delivery program by helping in the following areas: (1) oral rehydration theraphy (ORT); (2) birth spacing practices; (3) ante- and post-natal care; and (4) birth delivery care by trained personnel. USAID's approach will be to directly influence actual health service providers by supporting training, in-country and abroad, and supplying technical assistance that promotes inclusion of child survival interventions and preventive health programs into the routine public health service.

More specifically, the USAID will work jointly with the Government to improve the delivery of PHC through the development of more qualified and better trained personnel, especially nurses and midwives but including physicians and paramedics. A parallel effort with the Government will be pursued to keep the expansion and institutionalization of public health education on the forefront of Jordanian health planning. To increase private sector activity in delivering reasonable cost basic health services and supplies, the Mission will work to enlist the resources of this sector to augment the production and distribution of basic health products, to become more involved in health information programs, and to participate in the development and implementation of a comprehensive health insurance system.

V. ADDITIONAL AREAS OF USAID CONCERN

A. URBAN DEVELOPMENT AND HOUSING

1. Sector Overview

The housing and urban sector in Jordan can be characterized as follows:

a. Approximately 70 percent of the country's rapidly growing population of 2.6 million reside in urban areas concentrated on the western edge of the country.

b. For the period 1961-1979 Jordan's urban population grew 6.7 percent annually.

c. According to current estimates Jordan's urban population will increase by some 2 million between 1985 and 2000.

d. Approximately 70 percent of the country's urban population resides within 30 kilometers of Amman, which accounts for more than half of total national employment and almost two thirds of gross domestic product (GDP).

e. Approximately 11 percent of the urban population live in official refugee camps administered by the United Nations Relief and Works Administration (UNRWA).

f. Some 7 percent of the urban population lives in low-income squatter settlements, many comprising overflows from nearby refugee camps, which are characterized by illegal tenures and serious deficiencies in infrastructure and social services.

g. Squatting on government lands on the urban fringe of Amman is increasing.

h. Housing for low income groups is in short supply.

2. Sectoral Constraints on Development

In an era of slower economic growth and growing unemployment, the development and management of efficient and cost-effective services and infrastructure in urban areas to support these activities, as well as to improve the welfare of a rapidly increasing urban population, are crucial challenges facing Jordan. Housing and urban sector constraints on overall socio-economic development include:

a. Uncontrolled urban sprawl and slum proliferation, especially in the Amman region, takes valuable agricultural land out of production and is difficult and expensive to service.

b. There is a multiplicity of overlapping government agencies and authorities responsible for housing and urban sector development.

c. Urban infrastructure is often poorly maintained and inefficiently provided.

d. There is no comprehensive government shelter strategy.

e. There is inadequate encouragement of private sector participation in the production of affordable housing for lower income families due in part to

difficulties faced in assembling large tracts of land and in finding construction and mortgage financing for large-scale development.

f. High land and housing construction costs reflect, in part, excessively high construction and land use standards.

g. Loans for land purchases for home construction are not available.

3. Government's Sector Strategy

The Five Year Plan, 1986-1990, strategy includes the following:

a. Promotion of economic and social development away from Amman;

b. Regional development - increased local participation in planning and regional development funding;

c. Employment generation particularly through manufacturing;

d. Promotion of private, non-agricultural and mineral exports;

e. Continued emphasis on water and sewage infrastructure in towns and cities;

f. Consideration of the potential conflict between need for greater economic growth and export earnings and promotion of growth outside Amman; and

g. Small scale enterprise development.

Major contributions to the urban development of Jordan have been made by donor agencies. The major actor in the urban sector has been the World Bank, which has provided both studies in the sector and loan financing for urban projects. Bank lending activities have covered most of the critical aspects of urban development, including the Urban Development Program 1 (UDP1) and UDP2; seven water and sewerage projects; a loan to the Cities and Villages Development Bank (CVDB) of $10 million (and a second loan under appraisal); and a $30 million loan to help Amman Municipality ameliorate traffic congestion, upgrade municipal management, improve solid waste management, and commence systematic capital investment planning.

4. Proposed A.I.D. Strategy

In recent years, USAID has had less direct involvement with urban development than the World Bank; nevertheless, A.I.D.-funded water and wastewater projects (which represented about 60 percent of USAID's funding level from FYs 1981-1984) have impacted on Jordan's cities in a substantial way. USAID has also supported the Amman Urban Regional Planning Group, a regional planning advisory team within the Ministry of Planning (MOP), and funded the salaries of resident advisors to the Municipality of Amman in finance and engineering. USAID is also supporing the development of a shelter sector strategy and funding a low-income housing program through the A.I.D. Housing Investment Guarantee (HIG) Program.

USAID's strategy for the urban development and housing area of concern will be:

* To encourage greater regional development through improved decentralized planning of public investment, with emphasis on developing secondary cities as future growth poles.

* To improve access to decent, safe and sanitary housing for low income residents through the HIG Program.

USAID will implement this part of its strategy by encouraging the GOJ to make more optional use of the recently built urban infrastructure and to promote decentralized planning techniques which actively involve local private sector groups. The objective will be to stimulate complementary investments supporting accelerated regional development. To be successful, this approach will require increased coordination with the private sector, leading to jointly programed (smaller scale) public investments in essential urban infrastructure. This strategy will help maximize complementarities between public and private investment, at the municipal level, so as to better realize growth potential and employment generation from overall investment resources. Proposed strategy interventions will include:

* Policy studies designed to promote improved land use and greater efficiency in the provision of publically financed infrastructure and services;

* Technical assistance to secondary cities to establish an Economic Development Office to promote greater local investment;

* Support for human capital formation and complementary inputs required for new enterprise development;

* Improvements in the housing market by expanding access to long term credit and developing low cost housing on a commercial basis;

* Selective infrastructure investments, based on systems and flow analysis to include marketing/transport facilities, water and wastewater, and communications networks supportive of increased service sector activities.

B. SCIENCE AND TECHNOLOGY

1. Sectoral Overview

The field of science and technology is of increasing interest and concern in Jordan where it is seen as an area in which Jordan could develop a regional comparative advantage. Crown Prince Hassan actively supports and promotes applied science and technology endeavors through his Office for Science and Technology and his membership on a number of national committees. Much of the basic infrastructure (laboratories, equipment, technicians, etc.) needed to investigate and apply scientific and technological theories and systems is in place. Until recently, however, growth in the science and technology sector has been largely haphazard, resulting in duplication of equipment and effort in some technical areas with gaps in others.

The goal of Jordan's science and technology sector strategy for the 1986-1990 five year plan is to establish Jordan as a technological and scientific

center -- a market of first resort for technical assistance within the Arab World . The strategy's purpose is to improve Jordan's innovative capacity to adapt and apply existing techniques and theories to address development problems. Specific objectives of the strategy include: making more efficient use of Jordan's natural resources; establishing standards of quality (which should encourage product research); improving production and productivity; expanding technical data banks to facilitate planning and research; encouraging the growth of technical service companies.

2. Proposed A.I.D. Strategy

USAID's science and technology strategy is to transfer current technology and adapt and develop new technologies to fit Jordan's development needs. Jordan has demonstrated its interest in and ability to apply advanced scientific techniques to further its development goals. Given the U.S.'s comparative advantage in scientific and technological advances, USAID is able to take advantage of opportunities to transfer advanced technologies to Jordan through targeted assistance by specialized experts. USAID has three approaches to the transfer of scientific and technological knowledge.

First, USAID includes sizeable scince and technology components in discrete sectoral projects. For example, the Jordan Valley Agricultural Services project includes an integrated pest management scheme which introduced biological control technology to Jordan. For this scheme to become truly cost effective and self-perpetuating, equilibrium between pest and predators must be established; equilibrium requires many, diverse praditors that will check growth in various stages. The Jordanians enjoyed significant success: in 1983, less than 1 percent of the pests were killed by parasites; in 1986, approximately 40 percent were killed by parasites. Other projects offering significant science and technology components include the Highlands Agricultural Development Project and the proposed Industrial Development Project.

Second, USAID funds discrete science and technology activities which transfer advanced technology and scientific techniques, often incorporating on-the-job training and institution building, to help Jordan better define its physical and natural resource environment.

Since the dearth of natural resources fprces Jordan to investigate and understand its environment more precisely than countries more generously endowed, past and planned USAID activities concentrate on transfering technology that helps Jordan manage its natural resources environment. Illustrative activities include assistance to the Natural Resources Authority in establishing a seismic network. In addition to developing new capabilities within the Natural Resources Authority, the data acquired from the seismic network have improved Jordan's understanding of its geological and mineral environment and have become a key factor in AMOCO's decision to sign an agreement with Jordan to drill for oil. Other activities include assistance to the Ministry of Energy for energy conservation and load management studies, assistance to the National Geographic Center in establishing a remote sensing center, strengthening the Aqaba Marine Science Center, and computer assistance to the Natural Resources Authority.

A new science and technology component, production and productivity issues, is being addressed by the newly established USAID Private Sector Office. These will include product research, marketing and distribution, as well as linking Jordanian research institutions and private companies with appropriate U.S. counterparts. In addition to improving standards of quality and efficiency of

production, these efforts are expected to stimulate job creation and export promotion.

Technical assistance to upgrade skills and capabilities is provided through TSFS and PETRA; equipment can be procured through the Commodity Import Program; long-term training is provided through the Development Administration Training project.

C. ENERGY

1. Sector Overview

Jordan's energy needs will continue to be of major concern to USAID. The Kingdom remains dependent on oil imports for virtually all of its energy needs. These imports, mainly from Saudi Arabia and Iraq, represent a burden on the economy with the 1985 fuel bill amounting to $650 million, which is equivalent to 82 percent of exports and 11 percent of GNP. Leading consumers are transport (45 percent), industry (23 percent) and households (19 percent). In addition, the GOJ spent $70 million in 1985 on subsidies for fuel oil and jet fuel. Further, electric power plants in Jordan are oil powered and are having to meet a 20 percent average annual growth in demand for electricity. Overall, oil and gas are not expected to be found in Jordan in commercial quantities, notwithstanding an encouraging initial response from international oil companies taking up oil exploration concessions in Jordan. With regard to other energy sectors, oil shale production costs, currently $50 per barrel, make development of this resource uneconomic at the present time. Solar energy has only limited applications and could at best supply 5 percent of Jordan's energy requirements, and geothermal sources are not expected to contribute significantly to meeting Jordan's energy needs.

2. Sectoral Constraints on Development

In the past two years, Jordan has decreased its almost total dependence on a single source of supply (Saudi Arabia) for crude oil with the purchase of supplies from Iraq. With the completion of Phase Two of the Aqaba Power Plant, coal, rather than crude and fuel oil imports, will be increasingly relied upon for electric power generation. What makes this an attractive option is the potential for counter-purchase agreements, exchanging phosphates for coal which is currently being explored. Further, although in 1985 the volume of energy imports continued to increase, Jordan was able to reduce its energy bill for the first time in almost twenty years. The most important factor in this reduction was an increase in the import and cracking of fuel oil at the Jordan Petroleum Refining Company refinery, resulting in a savings of an estimated $16 million. The reduced OPEC price for Saudi Arabian light crude also contributed to an additional savings of an estimated $10 million.

With regard to pricing, progress has been made in reducing subsidies. Since 1980 domestic prices have been raised by over 40 percent for gasoline and 90 percent for diesel fuel. The 1986 budget projects that subsidies will be reduced from $70 million in 1985 to an estimated $14 million in 1986, due to declining oil prices rather than an increase in local energy prices.

In other areas, a number of banks have introduced solar energy loans to encourage the use of solar heating. Also, supported by foreign donors, the Ministry of Energy and Mineral Resources (MEMR) is sponsoring a number of studies aimed at conservation and development of national energy policies. In addition, MEMR is also proceeding with oil shale development resarch and encouraging international firms to manufacture solar energy products in Jordan.

There are four major GOJ institutions with responsibilities for operations in the energy sector. They include the following:

a. The Ministry of Energy and Mineral Resources (MEMR) is responsible for overall energy planning, coordination and policy formulation.

b. The Natural Resources Authority (NRA) is responsible for the development of domestic source of primary energy including oil exploration, oil shale development, minerals and groundwater. NRA has responsibility for exploration and development.

c. The Jordan Petroleum Refinery Company (JPRC), a privately owned firm in which the GOJ holds 12 percent of the shares, operates Jordan's sole oil refinery at Zarqa and is responsible for petroleum refining, distribution and marketing.

d. The Jordan Electric Authority (JEA), a government-owned utility, is responsible for formulating plans for the overall development of the power sub-sector, the construction of generation and transmission facilities, the generaiton and transmission of virtually all publicly supplied electricity and the distribution of electricity in the areas under its jurisdiction. In addition JEA regulates the following:

(1) Jordan Electricity Power Company (JEPCO), a private company owned by the public (77 percent), JEA (13 percent) and the municipalities (10 percent), which serves Amman and the environs.

(2) Irbid Electric Company (IDECO), a semi-private company owned by JEA (46.5 percent), Irbid Governorate municipalities (42.5 percent) and private investors (11 percent). IDECO services the Irbid region.

The major donor in the energy sector is the World Bank, which places priority on development of domestic energy resources, sector organization, pricing, planning and investment. The Bank's Jordan Energy Development Project is supporting petroleum exploration, power distribution, energy conservation, renewable energy development and energy planning. In concert with this strategy, the $1.2 million USAID Energy Package is underwriting studies and providing technical assistance in energy conservation, renewable energy development and energy planning.

3. Government's Sectoral Strategy

The GOJ's draft Five-Year Plan for 1986-1990 includes an energy section that defines Jordan's energy strategy as follows:

a. To increase oil exploration in promising areas and exploit oil resources in the "Hamza" field.

b. To diversify energy resources and concentrate on the development of domestic energy resources, especially from shale oil.

c. To attract international companies to take part in oil exploration activities.

d. To maintain continuity in electric power generation at lowest cost, to increase generating capacity to meet demand and to extend electric power to 97 percent of the country by 1990.

e. To study and encourage the use of renewable energy resources, especially solar energy to heat water for household and industrial uses.

f. To prepare and implement a national program designed to rationalize energy consumption and limit waste.

4. Proposed A.I.D. Strategy

In concert with Jordan's energy planning needs, USAID is implementing a $1.2 million package of energy activities in close collaboration with the World Bank's energy efforts. USAID is underwriting studies and providing technical assistance in energy conservation, renewable energy development and energy planning.

During the period of this CDSS, USAID's strategy will be:

* To provide limited help to the GOJ in rationalizing its overall energy sector planning; and

* To support the development of private Jordanian firms that manufacture in the area of renewable energy technologies.

USAID plans to implement this strategy by pursuing an active policy dialogue with the Ministries of Planning and Energy and Mineral Resources (MEMR) that focuses on the following concerns:

* Encouragement for the GOJ to eliminate energy subsidies; and

* GOJ adoption of an overall national energy planning policy

While USAID does not plan to play a major role in Jordan's energy sector through project assistance, USAID may provide training and/or technical assistance through its TSFS, PETRA and DAT projects in the areas of energy conservation, renewable energy development and energy planning. PETRA will enhance this effort particularly in the area of support for local private firms manufacturing in the area of renewables. The objective of this assistance will be to assist in the improvement of product standards and quality control measures for firms manufacturing in this area. Other possibilities include support for creation of a manufacturers' association to improve product standards and technical assistance to provide current renewable technology to private firm.

D. TRANSPORTATION*/

1. Sector Overview

The Transportation Sector includes a transport system which comprises roads, railways, ports and airports. Roads are the main mode of transport which mainly serves the transport corridor connecting Jordan with Syria to the north and with the Gulf of Aqaba to the south. This corridor is also served to some extent by rail. Roads supplemented by railways provide an adequate system which ensures the flow of merchandise from production centers to distribution

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*/ See Annex D. to this CDSS for additional information on Jordan's Transportation Sector.

centers and enables people to move with liberty and flexibility between different parts of the country. Road transport plays a major role in the movement of general cargo, cement, potash and transit traffic. Railways carry the bulk of phosphate from the mines to Aqaba. The large road network consists of approximately 2436 km of primary roads, 1035 km of secondary roads, 12532 km of rural and 2000 km of farm roads.

The railway covers the country with a line about 400 km long extending from north to south. Air travel provides local and international services which cover Jordan and connect it with the outside world. All transport subsectors with the exception of the Ministry of Public Works are connected with the Ministry of Transport for strategic planning only.

2. Sectoral Constraints on Development

In general, the major constraints facing this sector include:

* Lack of a comprehensive outlook towards the planning and organizaiton of the sector which needs a clear strategy. Therefore, planning and organizational activities are accomplished without coordination among various sub-sectors.

* Non-availability of sufficient numbers of specialized administrative and technical personnel and the migration of personnel to the private sector and neighboring countries.

* Inefficiency facilities which function below their operational capacity. Low standard of maintenance and lack of advanced technology.

* Decline in the number of specialized training programs in general.

3. Government's Sectoral Strategy

In its draft Five-Year Plan, the GOJ includes the following objectives for the timeframe 1986-1990:

* Build the infrastructure needed to support the development taking place in other sectors of the economy;

* Enhance the operational efficiency of key operating agencies through modernization;

* Conserve energy by promoting rail transport; and

* Improve manpower planning

The GOJ attaches highest priority to the improvement of international trade routes carrying substantial quantities of phosphate, potash, fertilizers, cement and general cargo vital for the economy of Jordan and neighboring countries.

4. Proposed A.I.D. Strategy

USAID's proposed strategy for this area of major concern is:

* To assist the GOJ to build a key highway linkage between Amman and the Dead Sea;

* To encourage the GOJ to significantly reduce or eliminate its heavy subsidization of fuel prices which should reduce fuel consumption;

* To encourage the development of private sector transportation facilities;

* To encourage the GOJ to establish and collect sufficient revenues from transport users to mantain its relatively fragile transportation assets

USAID, through its capital assistance to the GOJ in building a highway linking Amman to the Southern Jordan Valley, the King Hussein bridge and Jordan's occupied East Bank, the Dead Sea North/South road to the Southern Ghors and the Port of Aqaba, will make a significant contribution to the Government's strategy of building key infrastructure in support of development. The highway will replace an existing mountainous, poor quality road with a modern road link between two of Jordan's major production centers, the Jordan Valley and the Amman area. The highway in conjunction with East Bank Dead Sea North/South Road will greatly increase safety, improve access to Jordan's only port of Aqaba, and reduce the heavy traffic on the Desert Highway between Amman and Aqaba.

USAID through its policy dialogue with appropriate GOJ ministries and private sector leaders will encourage discussions of ways and means to improve East-West transportation linkages that would facilitiate East Bank-West Bank commerce and other export flows. USAID's involvement in the Amman-Na'ur-Dead Sea Road will provide both the leverage and opportunity to engage in meaningful policy dialogue on other transport issues such as axel loading, privatization of transport and commerce, user costs and fuel subsidies.

Also, the USAID, through its TSFS, DAT and PETRA projects, will be able to provide some limited technical assistance and or training support.

E. WOMEN IN DEVELOPMENT

1. Sector Overview

With the decreasing number of domestic job opportunities likely because of lower levels of economic growth, women in Jordan face more difficulty than their male counterparts in entering the job market, securing jobs and rising within bureaucratic structures. Increases in women's participation in the labor force (estimated at 12.5 percent in 1985) will be difficult to achieve given the pressure of the number of new entrants in the labor market and the ability of the economy to create sufficient new jobs. Women entering the job market will have more problems in finding jobs which match their skills and will face increased competition for available jobs. As employers continue to pare their workforces, women -- as comparatively new participants in the labor force -- will likely feel the effects first.

A tightening job market comes at a time when more females (49 percent of Jordan's population) are being educated. Illiteracy among women is declining because more facilities for female education are becoming available. Although two-thirds of Jordan's illiterates are women, illiteracy among females is mainly confined to older women living in rural areas. In 1983/1984, 48 percent of primary students were girls, 47 percent of preparatory students, and 49 percent of secondary students. (In 1974/75, these figures were 46 percent, 41 percent and 38 percent, respectively.) Currently, women comprise 40 percent of the students enrolled in Jordan's community colleges and 39 percent of its university students.

Besides becoming better educated, women in Jordan have become more visible participants in the labor force, having taken advantage of domestic job opportunities created by the emigration of male labor and the rapid economic growth of recent years. In 1979, females comprised 7.6 percent of the total labor force. Current estimates of the female participation rate vary; in 1983, it was estimated to be approximately 16 percent and in 1985, GOJ planners estimated it at 12.5 percent. Female employment is highly concentrated in public administration; about 69 percent of all employed Jordanian women work in the public sector, with more than half of total female employees engaged in teaching. Outside of teaching, women in the public sector are mainly employed as clerks and secretaries. In the private sector, banking is the leading field for female employment; approximately 15 percent of jobs in this sector are held by women. Women's participation in agriculture remains officially undocumented; however, studies funded by USAID in FYs 1984 and 1985 indicate that women are active participants in the agricultural workforce as members of family units working family-owned and sharecropped land and as day laborers. Women also run family farms in the absence of male family members away in the army or employed in the cities and have major responsibility for family livestock and gardens. Only a small percentage (5 percent in 1979) of women hold blue collar jobs outside of the home. Foreign female workers mainly employed in domestic housekeeping and in some professions such as nursing which has until recently been considered as a demeaning occupation for women.

2. Sectoral Constraints on Development

As stated in the Human Resources section of the CDSS, the recorded participation of Jordanian women in the labor force is closely linked to educational attainment. Women graduates of secondary and post-secondary educational institutions have benefited the most from job opportunities created in Jordan during the years of rapid economic growth. An overall increase in the female participation rate will hinge largely on the ability of the new graduates to compete with men for the fewer available white collar jobs. Women newly graduating from Jordan's community colleges and universities may tend to become discouraged more easily than men in job-hunting and drop out of the labor market. They may also be funneled into low paying jobs for which they are overqualified.

3. Government's Sectoral Strategy

GOJ policies to encourage greater participation in the labor force include emphasis on increasing educational facilities for women, including vocational training. Although women are increasingly accepted as employees, there are still social and cultural barriers to women's employment. According to the World Bank's 1984 Manpower Study, there is a strong correlation between family size and the female participation rate, indicating that when women marry and

then have children, they usually leave the labor force. Even though women hold full-time jobs they retain primary responsibility for home management and child rearing. Although public and private day care centers are more prevalent in the urban areas, the private ones are expensive (60 JD/month per child) and the quality of child care is highly variable. Under Jordanian labor laws, employers are required to provide a child day care facility if they employ five or more women, but loopholes in the law and the lack of enforcement are such that compliance is not ensured.

Recent studies indicate that health gains made by women and children are impressive although this target group remains the one most at risk health-wise. Life expectancy for women is estimated at 65 years. Expanded primary health care and child survival initiatives can maximize these gains. Also, recent GOJ pronouncements favoring "child-spacing" may provide the beginning of a concerted effort to fully address the problems of maternal morbidity and mortality caused by early and frequent child-bearing.

4. Proposed A.I.D. Strategy

USAID's strategy for this sector will be to:

* Encourage the GOJ to integrate women's concerns into its development efforts in water, health, agriculture and human resources; and

* Encourage women to participate in training programs geared towards skills refinement and employment potential.

USAID plans to implement the strategy through policy dialogue and selected interventions with the Ministry of Planning, the Ministry of Labor and Social Development, Ministry of Health, and with other appropriate GOJ officials as USAID develops and reviews its portfolio of projects. Aside from on-going support for the Catholic Relief Services Income-Generating Project, and the financing of a women's affairs advisor to the Ministry of Labor and Social Development, USAID has no discrete, women's activities. USAID's new private sector initiatives will also attempt to identify and assist women entrepreneurs. Some technical assistance and training support may be funded through the USAID's TSFS, DAT and PETRA projects.

F. PRIVATE AND VOLUNTARY ORGANIZATIONS (PVOS)

1. Sector Overview

In the past few years, as many as twelve U.S. registered PVOs have provided either technical or other types of assistance to Jordan through their associations with local Jordanian charitable societies. Their aid has been given in a range of areas including health, education, nutrition, family planning, income generation projects in rural areas, community development etc. Three of these U.S.-based PVOs currently have field offices in Jordan: Catholic Relief Services (CRS); Save the Children Federation (SCF) and AMIDEAST. USAID is currently providing funds to support the CRS Income Generating Project for Rural Women from its TSFS project. This project is being undertaken by CRS in Cooperation with the GOJ's Ministry of Labor and Social Development and an indigenous PVO, the Arab Women's Society at Mafraq. SCF is currently carrying out an integrated community development project in the Madaba area in cooperation with UNICEF. SCF has received support for the

establishment of its office in Amman from AID/W's worldwide matching grant. AMIDEAST is providing assistance to Jordanian students who wish to persue higher education in the U.S.

USAID has used the technical and administrative skills of the U.S. PVOs to strengthen the institutional capabilities of the indigenous PVOs. For example, the International Planned Parenthood is assisting the Jordan Family Planning and Protection Association in improving the delivery of private family planning services. The Path Finder Fund is also working with the Jordanian Soldiers Family Welfare Society in operating an income generation project and a family planning clinic for Women in the Zarqa area. A women's affairs advisor, funded from USAID's bilateral program, will soon begin work with the Ministry of Labor and Social Development to help the Ministry increase its women's income generation projects most of which are being developed by indigenous PVOs.

There are 349 Jordanian charitable societies (indigenous PVOs) now operating in Jordan with a total membership of 31,894 at the end of 1984. The number of persons who were helped by these sociaties reached 70,863 by the end of 1983. Approximately 82 percent of all assistance provided went to health (34 percent), needy families (cash assistance) (20 percent), infants (MCH) (17.3 percent) and education (10.6 percent).

The funding sources for these local societies are: the Ministry of Labor and Social Development, the Union of Voluntary Societies, donations by private citizens and minimal assistance from foreign donors.

It is not clear from the GOJ's draft Economic and Social Development Plan, 1986-1990 where the charitable societies fit in the plan nor what their role will be in the development of the social sector. It is also not clear what steps are being taken by the GOJ to involve them actively in the development of Jordan.

2. Proposed A.I.D. Strategy

USAID will:

* Continue to provide limited support to U.S. PVOs and local charitable societies to help them develop their capabilities to design and implement integrated community development projects.

USAID will continue its policy dialogue with appropriate GOJ ministries aimed at strengthening the institutional capacities of the local societies to enable them to play a more meaningful role in Jordan's development. USAID may provide limited technical assistance to U.S. and/or local PVOs from its TSFS or PETRA projects or local currency generations from its CIP.

G. ENVIRONMENT

1. Sector Overview

The nature of Jordan's land creates numerous environmental and resource problems which are: lack of water resources; deterioration of agricultural land; and deforestration. With regard to human resources, the level of health is low, with malnutrition and illness affecting childern and women in the

child-bearing years. Infant mortality is high -- five or six times that of the United States. Insufficient water resources is the major problem facing the growing population of Jordan in its struggle to achieve an acceptable standard of life. With scarce water reources, it is difficult to meet the domestic needs, industrial and the agriculural demand. Degradation of soil resources through erosion is decreasing the cultivable land. Overgrazing by goats and sheep strip the land of its protective vegetative cover.

2. Sectoral Constraints on Development

Major environmental constraints include:

* Rapid use of very scarce agricultural land for housing and industrial uses (already 20 percent of the agricultural land has been lost due to urbanization).

* Jordan's growing industries are creating air pollution problems by emitting gasses and/or dust.

* Overgrazing by sheep and goats is stripping large amounts of land of its protective vegetative cover.

* Wasteful uses of water has caused increasing pollution and/or depletion of scarce water resources.

* Chemical and bacteriological contamination is growing in some of Jordan's major water basins such as the Zarqa and

* Extermination of many of Jordan's larger species of wildlife through overhunting between 1930 and 1960. (Some of Jordan's larger wild animals such as the Oryx, the Onager, the Asiatic Lion and the Wild Goat have already become extinct in Jordan).

* Phosphate mining, processing and transportation have created substantial dust emission problems which have in turn created growing air pollution problems, particularly in Aqaba.

3. Government's Sectoral Strategy

Jordan's draft Five-Year Plan for 1986-1990 states that the Government's environmental objectives will foucs on:

* Conserving all natural resources from wasteful utilization;

* Protecting agricultural lands from erosion, salinity encroachment and improper uses;

* Conserving and protecting grazing lands;

* Increasing the nations efforts in forestation; and

* Preventing the continuation of water resource contamination and air and noise pollution.

4. Proposed A.I.D. Strategy

Through an active policy dialogue with the Ministry of Planning and with appropriate line ministries, USAID will help the GOJ to increase its awareness

of environmental issues and concerns and better understand the costs associated with unsound environmental practicies. USAID's strategy for this area of concern will be to:

* Continue to ensure the environmental soundness and long-term sustainability of all USAID projects.

* Assist Jordan to identify and solve its environmental and natural resource problems by strengthening its institutional and scientific capacity, and;

* Promote environmentally sound development projects funded by other donors.

USAID will implement this strategy through continuing policy dialogue and through limited technical assistance to help the Government to minimize the adverse impacts of various environmental practices and to sharpen its environmental protection policies and regulations. Such technical assistance will be financed under TSFS, PETRA (in case of environmental problems related to private sector) and regional environmental activities.

VI. LISTING OF USAID'S PROPOSED PROJECTS AND RESOURCE REQUIREMENTS

A. POSSIBLE USAID PROJECT INITIATIVES, FY 1986-1990

The following tables illustrate the USAID's best estimates of the program levels, the sectors and an illustrative list of project titles that will be required to implement the strategy set out in this CDSS.

FY 1986

(Millions of U.S. Dollars)

PROGRAM SECTORS/PROJECT CONCEPTS	LOANS	GRANTS	TOTAL
I. MINIMUM/CONTINUITY LEVEL: $89.6			
Commodity Import Program	-	50.0	50.0
Public Sector CIP	-	20.0	20.0
Private Sector CIP	-	15.0	15.0
Mixed Sector CIP	-	15.0	15.0
Private Sector	-	14.6	14.6
Industrial Development	-	2.0	2.0
Pvt. Enter. Tech. Res. Asst.	-	10.0	10.0
Fiscal Policy & Planning	-	2.0	2.0
Dev. Admin. Trng. IV (Pvt. Sector)	-	.6	.6
Human Resources Development	-	8.0	8.0
Tech. Ser. & Feas. Studies V	-	7.0	7.0
Dev. Admin. Trng. IV (Pub. Sector)	-	1.0	1.0
Population & Health	-	2.0	2.0
Training in Child Survival and Primary Health Care	-	2.0	2.0
Transportation	-	15.0	15.0
Amman-Na'ur-Dead Sea Road	-	15.0	15.0
Water & Wastewater	-	-	-
Agricultural and Rural Development	-	-	-
TOTAL FOR MINIMUM/CONTINUITY LEVEL	-	89.5	89.5*

* AID/W will withhold $247,000 from USAID/J's FY 86 OYB total of $89,570,000 for operating expenses formerly funded from O.E. account.

FY 1987

(Millions of U.S. Dollars)

PROGRAM SECTORS/PROJECT CONCEPTS	LOANS	GRANTS	TOTAL
I. MINIMUM/CONTINUITY LEVEL: $108.0			
Commodity Import Program	-	60.0	60.0
Public Sector CIP	-	20.0	20.0
Private Sector CIP	-	20.0	20.0
Mixed Sector CIP	-	20.0	20.0
Private Sector	3.0	14.0	17.0
Industrial Development	-	6.5	6.5
Small Entrepreneur Development	3.0	2.0	5.0
Private Services Sector Development	-	5.0	5.0
Dev. Admin. Trng. IV (Pvt. Sector)	-	.5	.5
Human Resources Development	-	5.0	5.0
Tech. Ser. & Feas. Studies V	-	4.0	4.0
Dev. Admin. Trng. IV (Pub. Sector)	-	1.0	1.0
Population & Health	-	4.5	4.5
Training in Child Survival and Primary Health Care	-	4.5	4.5
Transportation	-	10.0	10.0
Amman-Na'ur-Dead Sea Road	-	10.0	10.0
Water & Wastewater	-	7.5	7.5
Water Resources Development	-	7.5	7.5
Agriculture and Rural Development	2.0	2.0	4.0
Highland Agricultural Development	2.0	2.0	4.0
TOTAL FOR MINIMUM/CONTINUITY LEVEL	5.0	103.0	108.0

FY 1988

(Millions of U.S. Dollars)

PROGRAM SECTORS/PROJECT CONCEPTS	LOANS	GRANTS	TOTAL
I. MINIMUM/CONTINUITY LEVEL: $100.0			
Commodity Import Program	-	50.0	50.0
Public Sector CIP	-	20.0	20.0
Private Sector CIP	-	15.0	15.0
Mixed Sector CIP	-	15.0	15.0
Private Sector	-	26.5	26.5
Private Services Sector Development	-	5.0	5.0
Pvt. Enter. Tech. Res. Asst. II	-	10.0	10.0
Pvt. Sector Development Bank	-	11.0	11.0
Dev. Admin. Trng. IV (Pvt. Sector)	-	.5	.5
Human Resources Development	-	5.0	5.0
Tech. Ser. & Feas. Studies V	-	4.0	4.0
Dev. Admin. Trng. IV (Pub. Sector)	-	1.0	1.0
Population & Health	-	2.0	2.0
MCH - Child Spacing	-	2.0	2.0
Transportation	-	5.0	5.0
Amman-Na'ur-Dead Sea Road	-	5.0	5.0
Water and Wastewater	-	-	-
Agriculture and Rual Development	-	11.5	11.5
Highland Agricultural Development	-	6.5	6.5
Agricultural Marketing	-	5.0	5.0
TOTAL FOR MINIMUM/CONTINUITY LEVEL	-	100.0	100.0

FY 1989

(Millions of U.S. Dollars)

PROGRAM SECTORS/PROJECT CONCEPTSLOANS	LOANS	GRANTS	TOTAL
I. MINIMUM/CONTINUITY LEVEL: $100.0			
Commodity Import Program	-	50.0	50.0
Public Sector CIP	-	20.0	20.0
Private Sector CIP	-	15.0	15.0
Mixed Sector CIP	-	15.0	15.0
Private Sector	-	30.0	30.0
Pvt. Sector Development Bank	-	9.0	9.0
Dev. Admin. Trng. IV (Pvt. Sector)	-	1.0	1.0
Export Development	-	10.0	10.0
Financial Markets Improvement	-	10.0	10.0
Human Resources Development	-	6.0	6.0
Tech. Ser. & Feas. Studies VI	-	5.0	5.0
Dev. Admin. Trng. IV (Pub. Sector)	-	1.0	1.0
Population and Health	-	2.0	2.0
MCH - Child Spacing	-	2.0	2.0
Water and Wastewater	-	2.0	2.0
Water Resource Development	-	2.0	2.0
Agriculture and Rural Development	-	10.0	10.0
Agricultural Marketing	-	5.0	5.0
South Ghors Agr. Dev.	-	5.0	5.0
TOTAL FOR MINIMUM/CONTINUITY LEVEL	-	100.0	100.0

FY 1990

(Millions of U.S. Dollars)

PROGRAM SECTORS/PROJECT CONCEPTS	LOANS	GRANTS	TOTAL
I. MINIMUM/CONTINUITY LEVEL: $100.0			
Commodity Import Program			50.0
ESF Project Program			50.0
			=====
TOTAL FOR MINIMUM/CONTINUITY LEVEL			100.0

B. USAID STAFFING AND OPERATIONAL EXPENSE FUNDING REQUIREMENTS

1. Estimated USAID Staff Requirements

The numbers and types of staff that will be required to implement this USAID strategy will be shaped both by: (1) the implementation and monitoring responsibilities for projects initiated in prior years; and (2) USAID's increased emphasis on relatively labor-intensive activities in support of the private sector. For example, a USDH Agriculture expert will be needed to manage the Highland Agriculture and the Agriculture Marketing Development Project and, while there will be a reduction in the emphasis in capital infrastructure this reduction will be more than offset with private sector emphasis which will be more labor intensive. It is expected that we will have at least five new projects in the private sector during the CDSS period.

An increase in USDH and FNDH is not anticipated during the CDSS period, but we plan on an increase of up to seven Personnel Services Contractors (PSC's). Because of the increased emphasis in the Private Sector we plan on recruiting two professionals. This is in addition to the Resident hire (part time) authorized in February, 1986. In addition we anticipate an increase of five PSC's among the financial management, secretarial, and logistic support categories.

2. Estimated Operating Expense Funding Requirements

The USAID's need for Operating Expense (OE) fund is expected to be fairly constant throughout the CDSS period. Starting from a base of $2.3 million in FY 1986, the USAID's O.E. level is expected to rise to $2.5 million by FY 1990. It is also significant that commencing in FY 1986, local currencies generated under the USAID's CIP program will be provided to offset a part of the USAID's O.E. requirements. The following table illustrates O.E. funding requirements during the CDSS period as following:

	Millions of Dollars or Dollar				
	FY 86	FY 87	FY 88	FY 89	FY 90
Dollar Portion	2.0	1.3	1.4	1.4	1.5
Trust Fund Portion	.3	1.0	1.0	1.0	1.0
T O T A L S	2.3	2.3	2.4	2.4	2.5

COUNTRY DEVELOPMENT
STRATEGY STATEMENT
FY 1988

USAID'S POLICY DIALOGUE AGENDA

A N N E X A

J O R D A N

VII. ANNEXES

A. USAID'S POLICY DIALOGUE AGENDA

Jordan has utilized past U.S. assistance prudently and the Jordanian economy has grown rapidly during the past decades. This long, successful development relationship has given USAID a unique opportunity to conduct a continuing interchange of ideas, information and technical opinions between USAID staffers and Jordanian counterparts at many levels within both public and private sectors. Against this background of mutual trust and professional respect, USAID will implement a vigorous policy dialogue during the period covered by this CDSS.

In addition to formal policy dialogue through the CIP macro-economic policy consultations and dialogue with individual Government officials, USAID plans to broaden participation in its policy dialogue by helping to develop associations of consumers and producers and to provide them with analytical capacities to strengthen their advocacy positions. Consumer groups could, for example, become effective in advocating changes in the regulation of retail trade, import monopolies, and cross-subsidy schemes which adversely affect the majority of consumers. An association of new and young manufacturers might, for example, be an effective advocate for change in the industrial licensing system.

USAID's Policy Dialogue Agenda, as outlined in the following matrix, lists the types of actions being considered in support of our policy dialogue and includes tailored technical assistance, as in the case of privatization, and focused training for policy analysis and implementation.

ISSUES AND CONCERNS	POSSIBLE ACTIONS
I. MACRO-ECONOMIC	
A. ISSUE: Encourage the GOJ to reduce subsidies and rationalize prices for food, energy, water, and higher education.	. Continue CIP policy dialogue consultations.
	. Conduct expert study of beneficiaries, cost effectiveness of food subsidies through USAID's Fiscal Policy and Planning project.
	. Undertake energy pricing and water tariff studies.
	. Commence dialogue with the Ministry of Higher Education on raising tuition fees, thereby improving university financing, and mounting a student loan program.
B. ISSUE: Encourage GOJ to carefully examine and reform its tax/tariff system to serve needed restructuring.	. Conduct an expert study of the overall incentive/disincentive impact of the tax/tariff system on savings, consumption, productive sector investment, employment, and exports.

ISSUES AND CONCERNS	POSSIBLE ACTIONS
C. ISSUE: Encourage the GOJ to reduce its controls on Jordan's financial markets by:	
1. Abolishing or reducing Central Bank ceilings on lending and deposit rates.	. Conduct CIP policy dialogue consultations.
2. Developing secondary market for Government bonds and treasury bills.	. Provide technical assistance and training for bankers on risk and credit analysis, bond trading, etc.
3. Reducing GOJ "directed credit" actions via syndicated loans and corporate bonds.	. Conduct CIP policy dialogue consultations.
4. Reducing market segmentation, for example, by helping the Jordan Housing Bank to use the more liberal aspects of its charter to extend lending beyond housing *per se*.	. Provide technical assistance to the Jordan Housing Bank in conjunction with HIG.
D. ISSUE: Encourage the GOJ to employ the exchange rate as an instrument of adjustment.	. Conduct CIP policy dialogue consultations.
	. Coordinate policy dialogue with World Bank and IMF.
	. Conduct studies of Jordan's competitive position, of shadow price of foreign exchange.
E. ISSUE: Encourage the GOJ to reduce level of protection afforded domestic market and raise incentives to export.	. Undertake an expert study of impacts of taxes, tariffs, and import bans on incentives to produce for domestic market vs. import (USAID's Fiscal Policy and Planning project).
II. PRIVATE SECTOR	
A. ISSUE: Encourage the GOJ to adopt fiscal, monetary, exchange rate and trade policies conductive to private sector growth.	. See actions under macro-economic program above.
	. Assist business organizations, and as appropriate, create new ones to advocate policy change through enhanced policy analysis capabilities.

ISSUES AND CONCERNS	POSSIBLE ACTIONS
B. ISSUE: Encourage the GOJ to significantly reduce its regulation of market entry and market operation by reducing regulation of:	
1. Industrial licensing	. Hold policy dialogue discussions with the GOJ;
	. Form a manufacturers' association to be advocate for deregulation
	. Identify constraints on services industry development through private sector assessment.
2. Retail trade	. Help consumers' groups to lobby for change.
3. Ministry of Supply's import monopolies and price controls	. Conduct an expert study of the beneficiaries, cost effectiveness of subsidies and price controls through USAID's Fiscal Policy and Planning project.
C. ISSUE: Encourage the GOJ to formulate policy on privatization of public enterprises and Government functions.	. Conduct CIP economic policy consultations.
	. Furnish technical assistance to Ministries of Finance and Trade and Industry on privatization policy.
	. Assist in identifying enterprises and specific Government functions for privatization and furnish technical assistance for business analysis of such firms and functions.
	. Continue CIP review of public sector procurements to encourage privatization of Government functions through "make or buy" and "contract out or force account" analyses.
III. AGRICULTURE	
A. ISSUE: Encourage the GOJ to reduce/eliminate its complex pattern of subsidies and cross subsidies on basic foodstuffs (bread, rice, sugar, meat, eggs).	. Conduct an expert study of subsidy beneficiaries and of cost effectiveness of implicit objectives of subsidies (USAID's Fiscal Policy and Planning project).

ISSUES AND CONCERNS	POSSIBLE ACTIONS
	• Provide technical assistance to help the GOJ rationalize its food security policies.
B. ISSUE: Encourage the GOJ to reduce its interventions in farm produce marketing by:	
1. Seeking active private sector involvement in utilizing several agricultural marketing/processing centers in the Jordan Valley.	• Conduct an agribusiness survey to identify investment and market opportunities.
	• Furnish technical assistance for privatization and leasing of centers.
	• Complete the Jordan Valley impact evaluation and make use of its results on marketing in holding an agricultural policy dialogue.
IV. WATER AND WASTEWATER	
A. ISSUE: Encourage the GOJ to strengthen its institutional framework for coordinating between the various agencies that have responsibility for the identification, allocation, protection, conservation and overall management of Jordan's water resources	• Help the Water Authority of Jordan (WAJ) to conduct an A.I.D.-financed Water Sector Assessment.
	• Help WAJ to complete and adopt its recommendations for formulating an equitable water tariff structure throughout Jordan.
	• Help WAJ to complete its assessment of training needs and begin to implement its findings.
	• Help WAJ to complete and implement its study of overall management needs.
B. ISSUE: Encourage the GOJ to continue to devote substantial water sector resources to the collection and treatment of wastewater in urban areas, primarily for health reasons.	• Help WAJ better understand its operational and maintenance needs in the sector.

ISSUES AND CONCERNS	POSSIBLE ACTIONS
C. ISSUE: Encourage the GOJ to explore newly developed technologies for low cost wastewater treatment and to plan for effluent use for agriculture in Jordan.	. Ditto
D. CONCERN: Encourage the GOJ to continue its exploratory work in groundwater sources and in studying methods to resolve problems of deep extraction and demineralization.	. Provide technical assistance and training through USAID's: Water Resources project.
E. CONCERN: Encourage the GOJ to further develop its remaining surface water sources, and to build and operate impounding dams to optimize their regulating effect.	. Ditto
F. CONCERN: Encourage the GOJ to monitor the physical and chemical qualities of known water resources to control the quality of spent water to allow for its reuse.	. Ditto
VI. HUMAN RESOURCES	
A. ISSUE: Encourage the GOJ to improve the market clearing of labor supply and demand.	. Conduct a dialogue with the Ministry of Higher Education and community colleges on raising tuition fees, thereby improving university financing, and mounting a student loan program.
B. CONCERN: Encourage more women to take advantage of participant training opportunities and/or entrepreneur development programs.	. Ditto
VII. POPULATION AND HEALTH	
A. ISSUE: Encourage the GOJ to promote a health policy of providing family planning services.	. Provide technical assistance to the Ministry of Health; provide funding for policy workshops and staff training in family planning.
B. CONCERN: Encourage the GOJ to formulate a more open national population policy.	. Provide support (financing and technical assistance) to the Secretariat of the National Population Commission.

ISSUES AND CONCERNS	POSSIBLE ACTIONS
C. CONCERN: Encourage the GOJ to emphasize primary health care activities.	• Design a new USAID project on Child Survival and Primary Health Care.
D. CONCERN: Stimulate the involvement of the private sector in the health sector.	• Conduct an expert study of comprehensive health insurance.
	• Provide technical assistance on production techniques to local pharmaceutical firms.
VIII. ENERGY	
A. ISSUE: Encourage the GOJ to adopt economic pricing for energy.	• Continue CIP economic policy consultations.
	• Furnish consultants to Ministry of Energy to conduct energy pricing, and energy supply/demand studies.
IX. TRANSPORTATION	
A. ISSUE: Encourage the GOJ to privatize Government owned transport systems.	• Provide technical assistance to develop plans for privatization of Alia and the Public Transportation Company.
B. ISSUE: Encourage the GOJ to rationalize user charges and enforce axle load regulations.	• Hold policy dialogue during design of Amman-Na'ur-Dead Sea Raod.
C. Encourage the GOJ to relax constraints on East-West Bank trade.	• Ditto

COUNTRY DEVELOPMENT STRATEGY STATEMENT

FY 1988

Population and Health
Strategy Paper

ANNEX B

JORDAN

APRIL 1986

AGENCY FOR INTERNATIONAL DEVELOPMENT

POPULATION AND HEALTH STRATEGY PAPER - FY 1988 CDSS

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SECTORAL ASSESSMENTS

Population and Health: Sectoral Assessment

1. Combined Population/Health Sectoral Overview

a. Health Status

Jordan has made great progress in improving its health status in the last two decades, decreasing infant mortality from 151 in 1961 to 60-65/1000 by 1984, eliminating malaria, and reducing communicable diseases. Life expectancy is 62 years compared with an average of 60 for middle income countries.

Respiratory infections and gastro-intestinal infections occurring during the wet and dry seasons respectively still account for most childhood mortality and morbidity. Lack of safe water supply is a major health problem, especially in rural and crowded urban areas. Among adults there has been an increase in cardiovascular diseases and hypertension. Automobile accidents are a growing concern, ranking sixth as a cause of adult deaths (1981 MOH Statistical Report). Table 1 which follows presents a profile of Jordan for 1984.

TABLE 1
Health Related Indicators for Jordan (East Bank)

Area:	90,309 square kilometers
Population:	2,595,112 (1984); 2,700,000 (1985 estimated)
Annual Natural Population Growth Rate:	3.4-3.7%
Literacy Rate:	70% (1981): 82% for males, 58% for females
Crude Birth Rate:	45-47 per 1000 population
Crude Death Rate:	10-11 per 1000 population
Total Fertility Rate:	6.6 children per woman (during child-bearing age)
Infant Mortality Rate:	60-65 per 1000 live births
Life Expectancy:	62 years
Physicians: Population:	1:892
Nurses: Population	1:1894
*/ Percentage of Population with Access to Piped Water Supply:	87%

Source: Department of Statistics, 1984 Annual Statistical Yearbook
*/ Source: Ministry of Planning, 1986

Diarrhea and respiratory diseases are the most important causes of illness and death in children under five. Accidents are the main cause of death in children aged 5-14, followed by respiratory diseases. For those over 15 years of age, the main causes of death, in order of importance, are heart and circulatory diseases, respiratory diseases, accidents and cancers. The following table shows deaths for all ages, by cause.

TABLE 2
Death from All Causes, All Ages Combined, Jordan

Heart and Circulatory Diseases	23%
Diseases of the Respiratory Systems	20%
Diarrhea	16%
Accidents	9%
Complications of Pregnancy and Delivery	6%
Cancer	5%
Malnutrition	3%
Other Diseases	19%
	100%

Source: Statistical Yearbook, Amman, 1980.

Infant mortality is still high, five or six times that of the United States. Diarrhea and respiratory diseases, malnutrition, accidents and specific infections diseases such as diphtheria, whooping cough, tetanus, measles, poliomyelitis and tuberculosis are all preventable. In Jordan health education is still in the early stages of being developed in an organized fashion; immunization is good with about 80% coverage; sanitation is variable; nutrition does not seem to be a severe problem but needs study; and reproductive hygiene is weak in prenatal care, postnatal checkups and child spacing.

Jordan does not have adequate data on nutrition but available data reveals some malnutrition. The 1983 Jordan Fertility Survey showed that 93% of children are breast-fed, for an average duration of 11 months. Breastfeeding declines with increased education and working women, and malnutrition is associated with inadequate breastfeeding. Growth charts are routinely used at Maternal and Child Health (MCH) clinics to spot malnutrition.

Parasitic diseases are not a major problem in Jordan. Malaria and schistosomiasis are potential problems and are carefully monitored with only imported cases reported.

There are several geographic factors which make reaching the majority of the population with health, and other social services, relatively easy as compared to most developing countries. Most of the people are urban, 70 percent, and concentrated in the northwest corner of Jordan between Amman-Zarqa and Irbid. The road network in Jordan is good and constantly being improved.

The climate is reasonably conducive to good health with no great problems with tropical or insect borne diseases. The marked variations in temperature and dust cause cycles of respiratory illness. The hot dry summers combined with low water utilization, 40-50 liters per day compared to a World Health Organization (WHO) standard of 80, lead to a sharp peaking of diarrhea during July and August. The climatic factors are no doubt exacerbated by inadequate refrigeration and poor sanitation.

The 1984 population was 2,595,112 and is currently estimated at approximately 2.7 million. The crude growth rate is approximately 4% (including immigration) while the natural growth rate is 3.4-3.7%. The total fertility rate is 6.6 and declining more slowly than the death rate, which in the last two decades has declined by half while the fertility rate has gone down from 9. Population will double every 20 years at current rates. With half the population under the age of 15, there is a great further growth potential.

Jordan has one of the world's fastest growing populations and this has significance for both social and economic development and health.

b. Present Health Care Systems

For a health system which serves less than three million people, the Jordanian health care system is quite complex as it consists of not one, but multiple independent sectors providing health care to different populations. The Ministry of Health (MOH), the Royal Medical Services (RMS), the Jordan University Hospital (JUH), and the United Nations Relief and Works Agency (UNRWA) provide services in addition to a growing private sector.

. Ministry of Health (MOH)

The Ministry of Health has been operating since 1951. It has these responsibilities for the entire Kingdom: providing preventive, curative and pharmaceutical services; improving health education and training; setting health policy; developing health legislation; and controlling medical and pharmaceutical services and professions. The MOH provides most of the preventive services available and about 50% of curative services to the population.

The MOH operates 1768 out of 4872 total hospital beds. Al Bashir Hospital in Amman is the main teaching and referral hospital for the 15 MOH hospitals. In addition, the MOH provides services through 150 health centers, 245 village health clinics, 100 MCH centers, 57 dental clinics and 5T.B. centers.

. The Royal Medical Services (RMS)

The Royal Medical Services provides free health services to all military and security personnel and their dependents, covering approximately 25% of the population. The RMS provides tertiary care through its main medical center in Amman, the King Hussein Medical Center, secondary care through five smaller hospitals outside Amman, and operates 14 Primary Health Care clinics.

. The University of Jordan (JUH)

The Jordan University Hospital (JUH) provides medical services to all university personnel and families (about 0.5% of the population), and serves as a teaching hospital for Jordan University medical and nursing graduates. The hospital is also a referral resource on a fee for service basis.

. United Nation Relief and Works Agency (UNRWA)

UNRWA provides primary care to some of the Palestinian refugees. Secondary and tertiary care are provided, mostly by the Ministry of Health.

. Private Sector

The private sector is available to all who can afford the fee for service or have private health insurance. This sector accounts for about a quarter of the hospital beds, almost half of the physicians and 40% of health expanditures.

Thus, there is much duplication and overlapping with many Jordanians eligible for service from two or three of the health systems.

TABLE 3
Number of Hospitals and Beds by Sector

Sector	# of Hospitals	# of Beds	# of Total Beds
Government:			
Ministry of Health	15	1768	36.3%
University Hospital	1	474	9.7%
Royal Medical Services	6	1318	27.1%
Sub-Total Government	22	3560	73.1%
*/ Private Sector:	26	1312	26.9%
GRAND TOTAL	48	4872	100%

* Excludes newly-opened Queen Alia Hospital, Amman

TABLE 4
Hospital Beds by Governorate

Governorate	# of Beds	% of Pop. Distrib.	% of Total Beds
Amman	3384	55.2%	69.5%
Irbid	867	28.3%	17.8%
Kerak	206	5.9%	2.2%
Ma'an	156	3.5%	3.2%
Balqa	259	7.1%	5.3%
	4872	100%	100%

TABLE 5
Health Manpower by Health Sector

	Public Sector				Private	Grand	Per 10,000
	MOH	JUH	RMS	TOTAL	Sector	Total	Population
Physicians	934	170	597	1701	1208	2909	11.2
Dentists	84	2	83	169	397	566	2.2
Pharmacists	47	4	34	85	660	745	2.9
Qualified Nurses	313	257	540	1110	160	1370	5.3
Qualified Midwives	173		20	193	121	314	3.1

Source: MOH 1984 Annual Health Report

c. Family Planning Services

According to the Jordan Fertility and Family Planning Survey-1983 (AID-financed), 26% of married women reported current use of contraceptive methods. This Contraceptive Prevalence Rate varied very little from the one recorded in the 1976 World Fertility Survey of 25%. Very short birth intervals, averaging 27 months, were reported. As elsewhere, greater contraceptive use is associated with high age and parity, urban residence and higher educational level.

Judging from responses, there was an unmet need for family planning services of about 20% of those interviewed. These women were defined as not currently pregnant and not desiring pregnancy, but not using any contraceptive method.

The majority of women obtain their contraceptive supplies from private physicians and pharmacies with only 13% using the government facilities of hospitals and MCH centers or clinics. The most popular methods were oral contraceptives and IUDs (at about 8% each).

TABLE 6
Percent of Women Using Contraception
by Source of Supply

Source		Percent
Private Sector		59.8%
Private M.D.	34.7%	
Pharmacy	23.1%	
Private Hospital	2.0%	
Government		12.6%
Public Hospital	10.9%	
MCH Center/Clinic	1.7%	
Jordan Family Planning and Protection Association		5.8%
University Hospital		0.2%
UNRWA		0.2%
Natural Methods		20.8%
Other		0.6%
		100%

(of the 26% Using Contraception)

TABLE 7
Percent of Women Contraceptors by Method Currently Used

Method	Percent
IUD	8.3%
Pill	7.8%
Sterilization	3.8%
Rhythm	2.9%
Withdrawal	2.4%
Condom	0.6%
Injection	0.2%
	26.0% Prevalence

2. Sectoral Constraints on Development

Population and health were described as a combined or joint sector in the Overview. However, although there is considerable overlap, the two sectors will be analyzed separately in the discussion of constraints, policy issues and project initiatives.

a. Population Constraints

With Jordan's limitations of arable land, water, natural resources and slowing economic growth, it will be difficult to maintain economic and social development (food, employment, schools, health and social services, per capita income) if the population doubles every 18-20 years, as currently projected.

According to the Futures Group update (1985) of "The Effects of Population Factors on Social and Economic Development" (RAPID), the following constraints exist or will prevail in Jordan if current high fertility continues:

. Approximately 50% of the population are under the age of 15, giving a child dependency ratio of slightly less than one adult of working age to each child.

. The population would grow from approximately 2.7 million to 6.1 million in 2010, while the urban population would increase from 1.8 million to 5.1 million.

. A 140% increase in all health facilities and personnel would be required by 2010, just to maintain current coverage.

. The number of school age children will more than double from 680,000 to 1.5 million by 2010 requiring twice as many teachers and nearly 3 times the current educational budget.

. The number of new jobs required each year will increase from an estimated 30,000 to 74,000 by 2010.

. The municipal demand for water would increase from 80 MCM/year to 300 MCM/year by 2010, 275% over today's levels.

. The agricultural self-sufficiency index (demand satisfied by domestic production) would drop from 33% to 17% by 2010 due to the combination of rapidly growing demand from population increases and restricted water availability for agriculture use from rising municipal demand.

. The natural population growth rate remains high (3.4-3.7%) in Jordan, based on continuing high fertility and lowered mortality rate. Family planning has been and still is a politically charged issue and one that the Government has been unwilling to explicity endorse. Although this lack of government support to family planning is a partial explanation, the continuing high natural population growth is somewhat puzzling.

Jordan seems to have gotten "stuck" in its passage through the Demographic Transition. The relatively high levels of income, education (literacy: 82% M, 58% F), life expectancy (62 years) and urbanization (70%), all fertility depressants, co-exist with very high fertility (Total Fertility Rate: 6.6). Analysts credit, with varying emphases, as sustaining high fertility (a) the "boom" prosperity created during the last decade from Jordanians' remittances from the Gulf States, (b) defensive nationalism among the large segment of refugees in the population, and (c) religious objections which are perceived as much political (fundamentalism, anti-Western) as Koranic in nature. While these factors have suppressed demand, the lack of availability of quality services for those desiring to plan their families has limited access to effective contraception. This bottleneck in supply is especially true in the public sector; to quote the 1985 World Bank Health Staff Appraisal Report:

> The lack of MOH birth spacing services is largely a result of the inability of the MOH, in a sensitive local environment, to formulate a coherent program of birth spacing services which it expects its staff to carry out as a high priority.

As elsewhere, Jordan's economic policies are the critical and dynamic factor in affecting its economic growth. USAID considers, however, that the availability of family planning services is an important complement to those economic policies and has, in its continuing policy dialogue, attempted to convince the Planning Ministry, the Ministry of Health and other governmental agencies of the validity of this view.

Health of women and children is importantly affected by fertility rates. High parity (more than three), and pregnancies too early (under 18 years) or too late (over 35), add significantly to the risk of mothers and children.

There is abundant Jordan-specific data justifying the need for birth spacing on strictly medical grounds. Jordan's participation in the World Fertility Survey in 1976 produced evidence that the mortality for infants born less than two years after an earlier birth (92/1000 live births) was over twice as high as for infants born at 2-3 year intervals (38/1000) and more than triple the rate for those with 3-5 year intervals (29/1000).

See Figure 1.

The Jordan Family Health and Fertility Survey (1983) reinforced the earlier finding, citing the average birth interval of 27 months in Jordan as one of the shortest observed intervals in the world.

With contraceptive prevalence recorded in 1983 at 26% of women of reproductive age, the Survey reflected an unmet demand for family planning of about 20% of women interviewed. I.e., one of every five women not using contraception indicated no desire for another child and, thus, was at risk of unplanned pregnancy.

FIGURE 1

THE EFFECT ON INFANT MORTALITY RATE

OF THE TIME BETWEEN BIRTHS

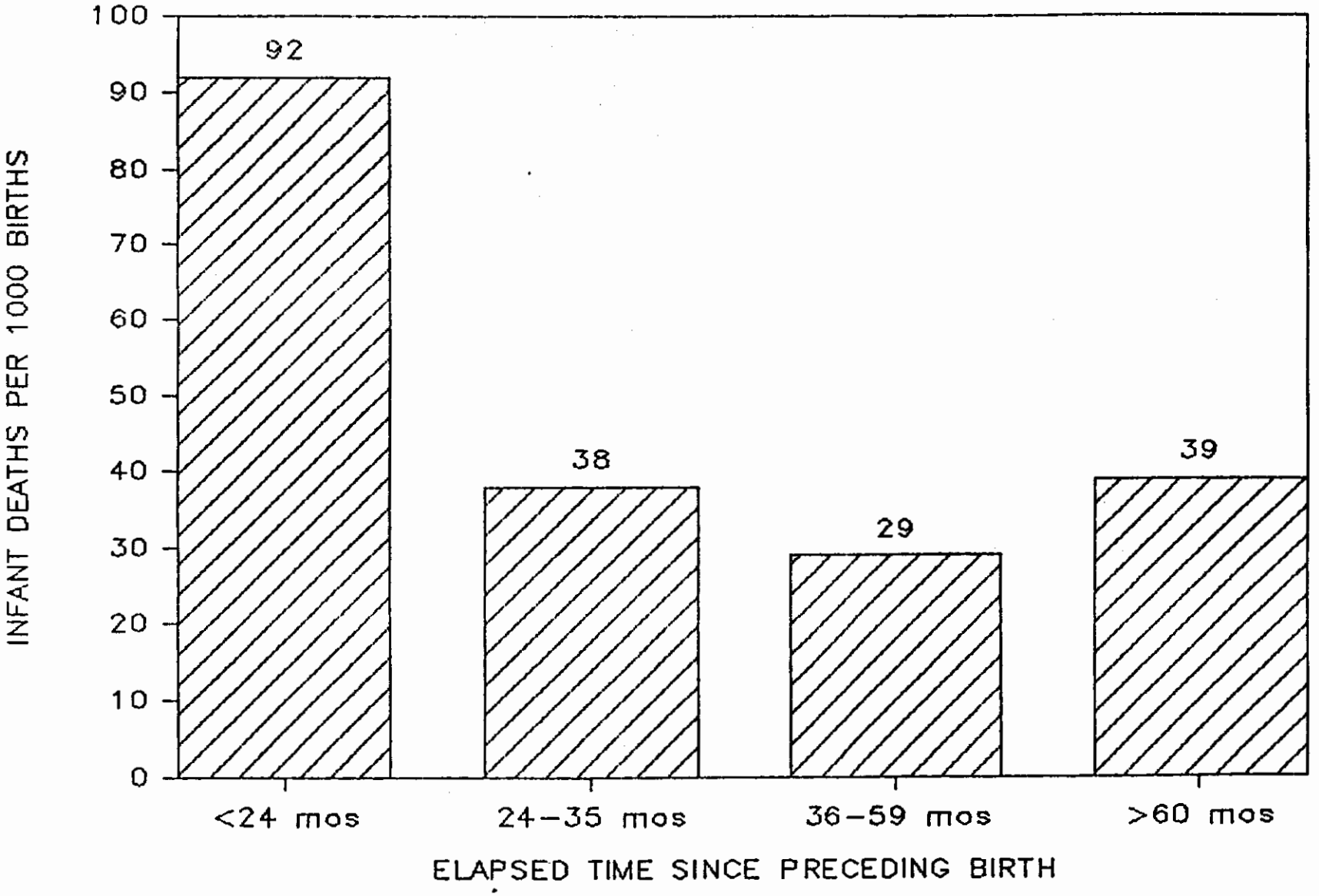

Chart prepared by The Futures Group, under AID contract, based on data from the 1976 Jordan Fertility Survey

The specific constraints to Jordan's conforming to a more modern pattern of reproductive health can be analyzed by sector.

Public Sector (Ministry of Health)

- MCH/Primary Health Care Centers

  Inadequate training and motivation of staff; system provides temporary family planning services to less than 1% of eligible couples.

- Government hospitals

  Demand higher for fertility termination services than supply capability.

Private Sector

- JFPPA

  Current clientele of upper parity (5+ children) and older (30+ years) cohorts.

  Too narrow and antiquated contraceptive mix.

- Private M.D.s

  Active but ill-informed.

- Pharmacists

  No promotion.

- Commercial pharmaceutical companies

  Restrictive Government regulations on pricing and product marketing.

A final constraint in the population sector has been the Government's reluctance, thus far, to enter into a bilateral agreement with USAID. If a bilateral agreement could be established, two operational constraints on USAID to generate more effective assistance would be reduced: (a) the Mission would not be wholly dependent upon availability of relatively limited Regional Population Project or Mission TSFS funds, and (b) a more integrated effort could be sustained over time in comparison to the "piecemeal" nature of centrally-funded support.

b. Health Constraints

Similarly in health, Jordan is in the midst of an Epidemiological Transition regarding the types of diseases which are important and the causes of death, as described in the Overview. Morbidity and mortality, especially among the young, stem from the largely preventable diseases and septic conditions found in more traditional societies: diarrheal dehydration, respiratory infections,

the communicable diseases of measles and tetanus, complications of pregnancy and delivery, and gastro-intestinal diseases. Yet for those over 15 years of age, the principal causes of illness and death are heart and circulatory diseases, accidents (mainly automobile), and cancer -- epidemological characteristics of a modern, more industrialized state.

The largest segment of the public -- fertile age women, infants and children (approximately 70% of the total population) -- are the most affected by preventable diseases and the complications of pregnancy and childbirth.

The chief sectoral constraint is that the primary health care system has not reached adequate levels of coverage of this population to prevent diarrheas, achieve universal immunization coverage, promote breastfeeding and child spacing and increase pre- and post-natal care. Prior GOJ health investment has emphasized the expansion of health facilities, which has led to an improved system of curative medicine, but at the sacrifice of equal emphasis to preventive health care programs. Consequently, the Ministry of Health has just recently begun to assume the role of public health educator.

As stated in the Overview, Jordan in the last two decades has succeeded in lowering the Infant Mortality Rate from 151/1000 (1961) to 60-65/1000 live births (1984). On this one index it now actually surpasses the Agency's overall target of 75/1000 IMR. Yet as a middle-income country with a number of health indicators comparable to the more advanced countries, the Government acknowledges that the IMR is unacceptably high.

The Mission analysis has isolated three factors that act as constraints to lowering the comparatively elevated IMR;

. Nearly one-half of all pregnant women (42%) do not receive prenatal care, leading to higher rates of prematurity and births of infants with congenital defects;

. Because of high fertility, infants born to mothers of upper parity (4+) and advanced age (35+) are at higher risk; and

. One quarter of all pregnant women (24%) deliver at home with untrained traditional birth attendants, often under septic conditions.

The second major problem with health services are the imbalances between urban and rural services and between tertiary/secondary hospital services and primary level health care. Exascerbating the disparities is the generally poor quality of services available in rural and primary level clinics due to the relative lack of well qualified personnel. For example, 70% of all hospital beds are concentrated in Amman Governorate in which only 55% of the population is located. Hospital oriented care consumes approximately 75% of health care expenditures. Although Jordan accepts the goal of Health for All by the Year 2000, most resources, in fact, go for relatively expensive hospital based services (about 75% of recurrent expenditures and 90% of capital investment).

PHC with its emphasis on prevention and relatively cheap basic medical care, such as oral rehydration therapy (ORT) and immunization, are more effective in reducing infant mortality, respiratory diseases and diarrhea than the more expensive high technology hospital services.

In spite of the 476 health centers and clinics, more are needed for complete coverage and more reasonable distribution. Even more important is utilization. Existing PHC facilities are not fully utilized because people prefer to go to hospitals rather than clinics due to the better quality of staff, equipment and supplies, range of services, and full-time, comprehensive services. The Ministry's PHC program has been particularly weak in outreach activities.

Another sectoral constraint to better health service is the imbalance in health personnel. Physicians are plentiful, numbering 2909 (1984) or 1:892 population. Nurses, on the other hand, are in short supply. The total number of registered nurses working in all sectors is 1370 of whom 368 or more than one quarter are foreign. There are twice as many physicians as nurses, and the reverse ratio would make for a more efficient health system. The quality of nursing education is deficient, especially in the newer nursing colleges. Permanent classrooms and dormitories are still to be built; teaching equipment is scarce and few of the faculty are fully trained as nurse educators.

The midwifery situation is even worse with a total of 314 registered midwives of whom 41, about one eighth, are foreign. As most are trained in MOH nursing colleges the same inadequacies apply. The lack of enough well trained midwives is reflected in the relatively high infant and maternal mortality rates, which in turn are related to a lack of universal prenatal care and the substantial number of deliveries unattended by a trained worker.

The nursing gap is partially filled by 532 assistant nurses trained for 18 months in one of the 12 assistant nurse schools. All the problems of nursing education are even more evident in these schools. Since assistant nurses constitute the bulk of PHC staff, this a serious concern.

Since all of the above nursing categories are in short supply, the hiatus is partly filled by 1977 practical nurses who receive a limited in-service training of 3-6 months in a hospital or PHC center. This training is entirely inadequate for staffing PHC and the MOH expects to phase out this category.

A fourth major constraint in the health sector is the lack of a fully developed health education effort as an essential element of a well organized PHC program. Life style factors such as proper nutrition and abstention from smoking tobacco, plus utilization of such preventive measures as immunization, breastfeeding and sanitation have more to do with a community's health status than the level of hospital care in a country. These important health protecting factors can be influenced by health education at both the mass media level and the personal contact level.

A health education effort should increase the population's understanding of healthy living and of preventive measures to protect health. Both mass media campaigns and the health education component of outreach teams can stimulate greater utilization of improved PHC services.

A final important problem area is the duplication of services and overlapping of the various health systems (MOH, RMS, UNRWA), which has led to inefficiences and underutilization of the private sector.

3. Government's Sectoral Strategy:

Priority health needs are articulated in the Government's Five Year Plan, 1986-1990 (in process of approval). There is close congruence between the Mission's long-standing policy emphasis and the highest ranked objective of the Plan's health sector: Primary Health Care. The plan defines PHC as:

- child and maternal care,
- vaccinations (Expanded Program of Immunizations),
- preventive services and health education,
- early diagnosis of disease,
- equitable distribution of services,
- development of general practitioners,
- increase in nursing and auxiliary personnel,
- citizen participation in health care financing,
- an enhanced role of the private sector, and
- environmental health protection.

To be noted is the Government's intent to establish comprehensive health insurance. Although uncertain of the scheme's organization, the Government plans a gradual phase-in, incorporating all present plans, to be completed by the year 2000. Key attributes are to be the utilization of private medical practitioners in the plan and patient sharing of financing.

Attention to expansion of secondary and terciary care has been downgraded from the previous Plan's emphasis, to a stated goal of more equitable distribution of health centers and hospitals, basically maintaining the ratio of 20 beds to 10,000 population. It decrees the closing of the Amman Municipality to new public hospital construction and attempts to promote decentralization of services by encouraging private sector investment in the north (Irbid) and south (Aqaba).

The Government's manpower objectives center on increasing the numbers and skills of nurses, midwives, auxiliary nurses and medical technicians. Continuing education is to be offered to the medical and paramedical community. Management improvement through fostering specialization in health administration and rationalizing central planning, along with health research, round out the Plan's strategic goals.

There is little mention of the population/family planning issue as a Government concern in its sectoral strategy. The population question is only addressed in the draft "Population, Employment and Wages Policy" section, which calls for action to:

> Reduce natural growth rate of population in the long-run, bearing in mind the necessary social constraints in the short- run.

Furthermore, there is some doubt that the final Plan will include an operational plan defining the necessary internal elements for achieving the decreased rate of population growth.

There are, however, two other program initiatives the Government has taken from which its policy stand on population can be implied. In 1973 a National Population Commission was established to assume the responsibility of planning and promoting a national population policy. Its major contribution to such development was to formulate the objectives of the population strategy found in the 1981-1985 plan:

. Appraisal of population growth trends and adoption of policies that would turn the population increase into an effective instrument for development, prosperity and an increase in production.
. Intensification of efforts which aim at raising the social, economic and health conditions of families within the framework of acquainting them with possibilities and methods of family planning.
. Expansion of the services of Maternal and Child Health (MCH) Centers to include the dissemination of community health and family planning services.

However, although officially supported by the Government, no quantitative targets for family planning services were ever specified. Furthermore, even when in 1979 family planning was ostensibly incorporated into Government MCH centers under the terms of an UNFPA grant, center staff were reticent in actually offering and delivering services. A UNFPA team reported (1985) that "It is felt that family planning even for health benefits is not overtly recognized (by MCH staff)."

The second program initiative stems from the Government's commitment in the World Bank Loan for Primary Health Care Expansion, which does set targets for MCH indicators. The targets accepted by the MOH for its own system (excluding the private sector and RMS) are as follows:

	1984	1992
Prenatal Care	20%	40%
Supervised Births	30%	40%
Well-baby clinic for Children under 1 year	5%	30%
Birth Spacing for Eligible Couples	1%	6%

Although the birth spacing service goal is minimal and extremely conservative, it is significant in that it is the first time a target has been established by the Government.

4. Proposed A.I.D. Strategy:

a. Policy Dialogue Initiatives: Issues and Concerns

Population Issues:

The Mission's overriding strategic objective in population is to promote a decline in the crude birth rate and natural population growth rate by increasing contraceptive use.

To date, in the face of the complex politics of the problem, USAID has been unable to apply bilateral resources to population activities because of the Government's unwillingness to request assistance. Although there are increasing indications that the GOJ position on population is in transition toward more openness, the Mission has had to depend entirely on AID central and regional funding to support local initiatives. To illustrate, in 1984-85, nearly $1.0 million of such funding was committed to both private and public activities promoting family planning services/awareness and demographic research, channelled mainly through U.S. PVO's. For example, recent AID efforts to energize Jordanian institutions in population/family planning have included the coordination of Pathfinder, Family Planning International Assistance (FPIA) and AVSC resources to private service agencies and the Johns Hopkins University/Population Communications Service project with the Jordan Family Planning and Protection Association (JFPPA). In 1984, the Jordanian Department of Statistics conducted a successful conference, with technical assistance from the Centers for Disease Control, publicizing the findings of the Fertility and Family Health Survey of 1983 (both survey and seminar funded by AID). In 1985 a Population and Development Conference was jointly-sponsored with the Minister of Labor with funding coming from the Regional Population Project (298-0048).

See Attachment 1 for the listing of the 20 activities monitored in 1984-85, totalling $975,000.

The relevant point here is that Mission efforts in the past in promoting population activities have been extremely labor-intensive and a heavy management burden on USAID staff. What is needed at this juncture is a bilateral project in population which, in effect, will legitimize the activity and rationalize AID's efforts in a more manageable and systematic manner.

In other words, the preferred method to achieve the sectoral strategy would be the realization of a bilateral population project. Such a project is, in fact, being targeted for 1988, which would be the first in the long working relationship with the Government that USAID has had in Jordan. Its creation will be the best signal of a change in governmental policy toward increasing the availability and accessibility of family planning services to the public.

In pursuit of this policy issue, USAID considers a realizable goal the targeting of a national contraceptive prevalence rate of 35% of reproductive age women by 1992 (baseline: 26% in 1983). This strategy follows the Agency's long-term goal of providing 80% of the people of developing countries with access to a comprehensive range of family planning methods, within the framework of voluntarism, informed choice and opposition to abortion and coercive population control practices.

A 35% contraceptive prevalence rate (CPR) in 1992 will (a) imply an average increase of about 1% per year, from 26% in 1983, (b) represent an approximate 5 point drop in the birth rate, from about 45 to 40/1000, and (c) constitute a .5% decline in the natural population growth rate, from 3.5% to 3.0%. Although not spectacular, this strong downward trend, if achieved, will be notable in view of the virtual stagnation in contraceptive use since 1976 when the World Fertility Survey recorded a CPR of 25%.

Assuming a current population growth rate of 3.5%, coverage of women of reproductive age will have to expand from approximately 130,000 (26% of 500,000 in 1983) currently using some form of contraception to 222,000 in 1992 (35% of 636,000), an increase of nearly 1000,000 women. Since there are limits on how much more the private sector of independent M.D.'s and pharmacies can do in the near future (source of the majority of contraceptive coverage now), the gap must be filled by action on the part of government clinics.

To make progress on this policy issue, the Mission will attempt to convince Government leaders to adopt a more favorable public health policy on family planning. In reality, this attempt will form part of continuum of effort dating from the first RAPID presentation in 1981 to engage the GOJ in policy dialogue on the population issue.

The strategy proposed here, however, differs from that of the past in that the major justification for a family planning program will be based on health rather than demographic rationale. As described in the Constraints section, recognition of the linkage between high infant mortality and short birth intervals has had greater influence on policy makers than the macroeconomic arguments against rapid population growth have had an government planners. It appears clear that prospects for establishing a bilateral agreement with the Government on child and maternal health activities that include birth-spacing are more likely than the probability of an AID/GOJ agreement for a demographic project seen as a population growth slowing measure.

A further Mission initiative toward achieving the strategic objective of bringing down birth rates will be to increase private sector capability to deliver family planning services and information. This should form the second major policy issue, but the dialogue is to be carried out primarily with non-governmental and commercial leaders rather than with the Government.

The Jordan Family Planning and Protection Association is in the unique position of having Government approval to implement the mandate of the International Planned Parenthood Federation in Jordan. Although beset in the past with management deficiencies and internal dissension, it has potential for greater responsiveness to the sub stantial segment of the population that prefers an exclusive (unifunctional) service rather than an integrated (various health services) approach to family planning care.

On the strictly commercial side, the solid infrastructure of the numerous drug companies and over 400 pharmacies in Jordan offer an opportunity for active promoting and more vigorous retailing of contraceptive products.

The third population policy issue relates to the need for more accurate public information on fertility control technologies. Physicians and other service providers have not been immune to the misconceptions about the medical risks and religious objections surrounding birth control measures and family planning. Likewise, the general public deserves to be exposed to an informational exchange that presents the benefits of the small family norm, correct information on side effects, and explicit referrals for further information and actual service.

A final population issue concerns USAID's continuing effort, as part of its policy dialogue objectives, to create greater awareness by the Government of population factors in development. Our support to form a Secretariat to the National Population Commission, foster demographic and fertility research, and sponsor population conferences will be maintained.

To summarize, the Mission's strategy in population is designed to:

. convince the Ministry of Health to offer more birth spacing services as a health measure;
. take advantage of the strength of the private sector and maximize its involvement in providing actual contraceptive products and services;
. influence public opinion, through mass media, to adopt more positive attitudes toward family planning; and
. convince the Government to devote more resources to population issues by establishing a vigorous Secretariat to the National Population Commission and formulating a more progressive population policy.

Health Issues:

In spite of the board range of health problems, both traditional and modern, that exist in Jordan, the principal strategic objective of USAID assistance will be to strengthen Jordan's primary health care services to impact on infant, child and maternal health. The goal will be to reduce infant mortality and improve maternal health. We will pursue this objective by implementing child survival and primary health care interventions on a selective basis. Most immunization rates are high (measles and tetanus being the exceptions), breast feeding is still relatively extended, and infant nutrition does not constitute a grave problem. Furthermore, UNICEF is active and effective in these fields. Therefore, USAID does not plan major vertical initiatives for these child survival strategies. Where USAID does intend to make an impact is in the health service areas that are clearly deficient and in need of improvement:

. oral rehydration therapy for diarrheal disease control.
. birth spacing practices.
. ante-and post-natal care.
. birth delivery care by trained personnel

To a lesser degree, mainly through educational means only, support to encourage breast feeding and maintain high immunization coverage of under fives will be provided. No direct assistance in nutrition programs is contemplated.

USAID's approach will be to directly influence actual health service providers by supporting training, in-country and abroad, and supplying technical assistance that promotes inclusion of child survival interventions and preventive health programs into the routine public health service. To achieve our strategic objectives, there should be one major bilateral project in progress, a second ready for obligation and a number of centrally funded initiatives in motion by FY 1988, as described below in 4.b.

The improvement of Jordanian training institutes' capabilities to expand the nursing corps and to better train licensed nurses, midwives and assistant nurses will be an effective means of promoting PHC. This corps, mainly female, is on the frontline of service delivery to the target clientele of infants, under fives and reproductive age women.

Another key policy issue is the need for AID and other donors to keep the expansion and institutionalization of public health education on the forefront of Jordanian health planning. A good start has been made by the MOH in establishing a specialized unit for health education and its momentum should be maintained. The effort should be extended, to a lesser degree, to the private sector, investigating avenues for increased activity in public health information.

In fact, greater involvement of the private sector in meeting Jordan's health needs constitutes the final major policy issue in health. This initiative should have two foci. The first should build on the dialogue already in progress with local pharmaceutical producers on the marketing of simple, low cost health products known to be effective against ubitious public health problems, such as ORS for diarrheal disease. The second concerns the role that private physicians (and pharmacists) will play in providing health information and in participating in the national health insurance plan that Jordan will eventually put into place.

4.b. Possible AID Project Initiatives

Population Initiatives:

One method helpful in visualizing project options is a grid that allows various program interventions to be rated according to their key attributes or constraints. In this way, priorities and feasibility of approaches are clarified.

See the attached Grid.

Specific USAID projects, devised as means to attain the strategic objective, will include, in order of anticipated impact and political/ technical feasibility, as:

. training of MOH personnel in MCH/birth spacing practices and inclusion of birth spacing messages in their health education campaigns;
. assistance to expand the network of private family planning (IPPF-affiliated) clinics;
. social marketing assessment of the commercial sector's potential for promoting contraceptive products and an eventual marketing and information role for the private sector; and
. continued policy dialogue with the National Population Commission Secretariat for research and policy development.

GRID OF POSSIBLE PROJECT INITIATIVES IN POPULATION

	Channel for AID Support	Potential Impact	Technical Effectiveness	Political Feasibility
1. Ministry of Health Services				
1A. Birth Spacing Training-MCH Centers	RONCO	High	High	Moderate
1B. Fertility Termination Services-Hospitals	AVSC	High	High	Moderate
1C. MCH-Birth Spacing Project	USAID/J	High	High	Moderate
2. Ministry of Health and Ministry of Information	USAID/J AED	High	High	Moderate
3. Jordan Family Planning and Protection Association	Margaret Sanger Center	Moderate	Moderate	High
Clinic Expansion	FPIA			
4. Private Sector: Social Marketing with Pharmaceutical Companies	Somarc Path	High	High	Moderate
Contraceptive Production and Distribution				
5. Ministry of Planning and Ministry of Labor Secretariat and Official Population Policy Formation	The Futures Group. Triton	High	Moderate	Low

The drive to establish a bilateral assistance program with the Ministry of Health is motivated by the recognition that the greatest impact on fertility can be achieved through improvements in the extensive public health service delivery system. It has been given further impetus by the recent willing of by the MOH to allow the Association for Voluntary Surgical Contraception (AVSC) to begin an organized sterilization program in the Ministry's two largest hospitals. The Mission will continue this support through the AVSC central grant and encourage expansion to other hospitals. The next step in this strategy is to build on this initiative by negotiating central support with the Ministry of Health for the training of its staff in family planning information and services. This support will be given by the RONCO Corporation under a central AID/W contract to provide technical assistance and training expertise. Finally, we expect that by FY 1988 or earlier, the Government will be positioned to request bilateral program aid for a new Maternal Child Health-Child Spacing project and we are preparing for this eventuality by including such a project (278-0275), budgeted at $2 million, in this CDSS.

At this time, the Mission envisages the bilateral MCH/Birth Spacing project as an umbrella agreement with the Government. It could be a 4 year project consisting of a public sector component (80%) and private enterprise (20%). The private enterprise "rider" would require only initial approval by the Ministry of Planning and form a TSFS-type "Mission Uses Only" resource with no further GOJ concurrence on subsequent allocations. The tentative parameters of what this project could be are described below:

Public Sector: The MOH, Primary Health Care Directorate, would be the implementing agency. Purpose: to train and finance a new corps of 30 M.D.'s as Birth Spacing Specialists (Family Planning Practitioners) attending maternity wards and well-baby clinics in the 22 public hospitals (34,558 deliveries in 1984) to: (a) inform each mother of child spacing benefits, methods and availability and (b) provide clinical service, principally immediate, for non interference with breastfeeding, post-partum IUD insertion, referral for ligation or progestin-only contraceptive pills. Bilateral resources would support a U.S. contract team in residence, staff, in-country training and stipends, OB/GYN equipment, contraceptives and medical kits, translation and dissemination costs of medical manuals and public information materials, and fellowships for replacement staff.

Private Enterprise: The 1985 OB/GYN physicians of the Jordan Medical Association could be formed into a collaborating agency called, for example, the Center (or Corporation) for the Advancement of Birth Spacing (CABS). Purpose: to function as a social marketing body, distributing contraceptives and information to private M.D.s for use in their clinics. M.D.s in the 26 private hospitals (17,375 deliveries in 1984) and those in smaller clinics would receive contraceptives, and perhaps sterilization equipment, at subsidized prices from CABS staff. In exchange the participating M.D.s would submit to CABS reports on services provided to clients and be eligible to engage in operations research projects and to considered for training. Bilateral resources would finance centrally-procured contraceptives and equipment, reimburse costs of central contractors for technical guidance (SOMARC) and operations research institutional payment per case (Family Health International-FHI), and subsidize CABS for costs of executive personnel stipends and detail men (commissions).

USAID will maintain a parallel action with an emphasis on service in the private sector. A project developed under contract with the Margaret Sanger Center in 1986 will extend the clinic network, improve the quality of contraceptive services and strengthen the management of the private, non-profit Jordan Family Planning and Protection Association (JFPPA). This Association is expected to be second only to the MOH in providing birth spacing services and in contributing to contraceptive prevalence from the non-commercial sector.

Based upon an assessment to be conducted by a central source (SOMARC other) in 1986, the Mission will pursue the prospect of establishing a social marketing program, retailing and promoting contraceptives through the professional pharmaceutical syndicate (the J.P.A.) or a commercial firm. It seems clear than an initiative already underway with a local pharmaceutical company to market oral contraceptives should be continued. If the subsidization of drugstore contraceptives appears merited and feasible, USAID will call upon central resources to develop and implement a social marketing scheme.

A necessary complement to quality services in a successful organized family planning program is an information program that instructs and counsels walk-in clients and promotes to the broader public the concept of family planning for future clientele. The bilaterally-supported Health Education Division of the MOH, which received a one year project extension in 1985, plans to begin the first publically-sponsored information on family planning in 1986. These should gradually become more explicit in message content.

It is expected that the Health Education Division's programs will continue through 1987 and beyond. USAID will request central assistance for a communications expert under the HEALTHCOM contract to help develop and disseminate messages to enhance public awareness of the benefits and availability of family planning. "Continuing education" to physicians and other professionals will be maintained through the distribution of publications (Johns Hopkins' "Population Reports", Columbia University's "Health Benefits of Birth Spacing", etc.) disseminated by ST/POP, and by arranging consultants and lecturers for professional seminars.

As an important strategic objective, USAID will sustain the policy dialogue with the GOJ regarding its need to take into consideration the impact of population growth on overall economic development. As described above, the result of previous efforts has been a greater receptivity on the part of GOJ officials to discuss population issues and family planning needs. USAID has attempted to capitalize on this more open attitude toward policy change by promoting the idea of a working group or "Secretariat" for the National Population Commission, a body which was reactivated in 1984. Regional Population funds were obligated in 1985 to support the work of the Secretariat. USAID will provide technical assistance, (through TRITON Contractor, others) as needed, to help the Secretariat best define its role and function, when the Government assigns staff and determines its organizational level.

A past emphasis of USAID's policy dialogue has been on the public displaying of "RAPID", a computer-based presentation that demonstrates socio-economic consequences of population growth on resources, social service demands, and other development factors. The 1985 update of an earlier model, which was presented to the Cabinet in 1981 by The Futures Group, was delivered in an AID-financed Regional Conference on Population and Development (Amman, March 1985) to approximately 100 Arab delegates. In addition, at Mission request, a special RAPID model on health and fertility interrelations was developed and demonstrated to the incumbent Health Minister, as well as his predecessor, and to key MOH staff. In the upcoming years, further diffusion and publicizing of resource-population growth relations will be fostered.

Other research efforts will be limited to operations research, periodic fertility surveys and support to public fora to publicize research fundings. The purpose of such activities will be to continue generating Jordan-specific data that can be utilized to develop analyses and impact statements on the relationship of high fertility, on the one hand, and health pathologies and the drain on resources, on the other. For example, dissemination of research findings from the 1985 Jordanian Husbands' Fertility Survey through an interministerial workshop and publication will be supported through the Department of Statistics. Additional assistance to the Department will be given to develop its computerized capability to present local demonstrations of "RAPID" - type simulations. The Centers for Disease Control (CDC-Atlanta), The Futures Group or other centrally-funded resource will be tapped for assistance in these research areas.

4.b. Possible AID Project Initiatives

Health Initiatives:

In a pragmatic application of policy dialogue issue transformed into project initiative, USAID will continue to exert influence on the Health Ministry to channel more attention, resources and priority to Primary Health Care through a new project, Training in Child Survival and Primary Health Care (No. 278-0270).

In the planning and design stage currently, this project is scheduled to obligate $2.0 million of FY 1986 funds, and an additional $4.5 million in FY 1987. It is expected to be well established by FY 1988, with a U.S. contract team in country, nursing school curricula (incorporating the primary care techniques mentioned in 4.a Health Issues, above) being developed and with a training program underway to produce greater numbers of well-trained nurses, midwives and assistant nurses needed to staff the public system of PHC.

USAID plans to continue support to what has been a priority area of past efforts in child survival: oral rehydration therapy. In 1981, AID provided advisors to the largest hospital in the country (11,000 deliveries annually) to establish an ORT training site. Since then, use of this technology has been transferred to peripheral hospitals, clinics and posts through the training of public health staff. On the commercial side, AID sponsored the attendance of Jordanian businessmen to Burgenstock and funded a feasibility study for a major pharmaceutical plant to stimulate interest in local production of salts. Product launch by the local manufacturer, whose owner attended the Burgenstock conference, is scheduled for 1986.

The AID bilaterally-supported Health Education Project is now engaged in developing the promotional messages on ORT used on radio and T.V. for the 1986 diarrheal disease season. The purpose of the campaign will be to alert mothers to the signs of dehydration and to instruct them in the proper use of oral rehydration salts in their homes. The Mission is aware of the importance of good coordination on message content in programs with Government-provided packets as well as commercial products and is channeling technical assistance from the Academy for Educational Development to the Health Ministry to ensure coordination. For the future, the Mission plans to develop a new and broader "Communications Program in Health", through the auspices of the HEALTHCOM contract, using both central and bilateral funding. Such an endeavor will capitalize on the infrastructure developed in the MOH. Health Education Division through the bilateral project (278-0245), which is terminating in December 1986. The purpose is to use the successful ORT campaign techniques and strategies as a model, employing private advertising agencies and integrating official information organs of the Government, to launch similar campaigns in the mass media for other public health concerns.

Further collaboration with the private sector will be enhanced in several ways:

a. Health products

USAID has a new opportunity to promote public health interests through the commercial sector with the advent of the Commodity Import Program (CIP). Requests for capital equipment for private hospitals have already been voiced by several clinic administrators and a considerable trade can be expected over the next few years. The potential of the Jordan local manufacturing sector can be further promoted by USAID-provided technical assistance, as has been done with oral rehydration salt production. USAID will remain alert for opportunities to assist local efforts in the production of oral contraceptives, vaccines, syringes or other health products to enhance public health.

b. Public information

Our analysis of the role of private sector in public health indicates that presently one half of all health care in Jordan is provided by the private sector. However, that care is predominantly curative through private M.D.s, containing little or no element of public education, or through pharmacies in on-the-spot diagnoses and sales of medications. Continuing health education, an objective of the GOJ Health Sector Plan, can be supported by USAID to benefit the private sector and ultimately the Jordanian public through:

- inclusion of private clinics as distribution points for health education posters, pamphlets and other materials produced by the MOH.
- Sponsorship of U.S. lecturers, consultants and other advisors to the Jordan Medical Association and local professional groups.
- Participant training for non-governmental leaders of the medical and pharmaceutical communities to study public health issues.

c. Health Insurance

One of Jordan's major health problems is the complex system of multiple overlapping health service providers with about half of the population having double coverage. The GOJ now seems serious about reorganizing health services by instituting a national health insurance scheme. A series of consultants have provided preliminary studies and options and the Five Year Plan for 1986-1990 stresses the development of a health insurance scheme. The Minister of Health wants to involve the private sector and the President of the Medical Syndicate states that private physicians desire to participate in the planning and execution of the health insurance program.

Since the private sector now provides half of all medical services, they have a big stake in the type of scheme that eventually evolves. Many questions affecting the private sector must be answered and studies of usage rates and unit costs must be made before the insurance scheme can start.

To gather the necessary data and to assist in planning, the GOJ will need consultants experienced in health insurance, although decisions can be made only by the GOJ. AID will assist by providing consultants through central funding (REACH Contract and others) to explain systems now in operation elsewhere and the potential use of the private sector. A recent AID/Westinghouse health economic consultant, has been requested by the Ministry of Health to return to Jordan to present his final report. Many other consultations will be needed over the years to assist with the detailed studies, training and planning required to develop a health insurance scheme by which the private sector will continue to provide health care to the public.

USAID anticipates making greater use of Jordanian-based private and voluntary organizations. To supplement Mission efforts in primary health care, we plan to arrange central funding (Child Survival Fund) for projects with one and possibly two U.S. PVOs. Save the Children (STC) intends to initiate a health and nutrition activity in selected low-income urban sites in Jordan and has indicated that it will seek AID funding as early as FY 86. STC's project objective will be to replicate a community - based preventive health care experience sponsored by UNICEF underway in a rural zone that aims to improve living and health standards, especially of women and children. The outreach programs emphasize growth monitoring, ORT and nutrition and are expected to be expanded to include training of Traditional Birth Attendants.

A second possible PVO involvement may be with Catholic Relief Services (CRS). After conducting needs assessment surveys in various communities, CRS is about to propose establishing a "lifecycle" health education project similar to that being implemented on the West Bank. Although some support would be expected of the Health Ministry, the self-sustaining character of the activity, derived from recipient community contributions, merits USAID consideration and possible endorsement.

Recourse to centrally-funded contracts will be made to fill in gaps in bilateral projects for short-term technical advisors.

In summary, the USAID project initiatives for strengthening the child survival and PHC services that are proven to lower infant mortality rates and to improve maternal health care will be to

- reorient the corps of public health workers through a variety of coordinated long- and short-term training programs, backed up by technical assistance,
- expand public health education, and
- enlist the resources of the private sector in health products production, health information and health insurance.

ATTACHMENT 1

POPULATION/FAMILY PLANNING PROJECT ASSISTANCE TO JORDAN BY SOURCE (USAID, REGIONAL AND AID/W CENTRAL)

FY 83 TOTAL: $237 (thousand)

	PUBLIC	PRIVATE	
USAID TSFS (57)	57	-	Dept. of Statistics J. Fert. & Fam. H. Survey
REGIONAL (0)	-	-	
CENTRAL (180)			
PF		100	Zarqa S.F.W.S. Clinic
FPIA		60	Zarqa JFFPA clinic
JHPIEGO		20	Fertil. Management Training, JHU
	PUBLIC TOTAL: 57	PRIVATE TOTAL: 180	

FY 84 TOTAL: $443 (thousand)

	PUBLIC	PRIVATE	
USAID TSFS (10)		10	VSC Conference in Dominican Republic
REGIONAL (159)	55		Update of "RAPID" Model-MOLSD
	24		Fertility Survey Seminar-D.O.S.
	75		1st Arab Conf on Pop. & Dev.- MOLSD
CENTRAL (274)			
PF		101	Zarqa S.F.W.S. Clinic
PF		18	U. of J.-Com'ty Medicine Dept.
FPIA		15	Women's Dev. Workshop
JHU/PCS		60	Info & Educ.-JFPPA
JHPIEGO		20	Fertility Management Training JHU
	PUBLIC TOTAL: 154	PRIVATE TOTAL: 289	

FY 85 TOTAL: $532 (thousand)

	PUBLIC	PRIVATE	
USAID TSFS (0)	-	-	
REGIONAL (243)	100		Secretariat to National Pop. Commission-MOLSW
	83		Male Fertility Survey-D.O.S.
	60		Data Analysis (BUCEN)-D.O.S.
CENTRAL (289)			
PF		91	Zarqa S.F.W.S. Clinic
FPIA		70	Zarqa JFPPA Clinic
JHU/PCS		60	Info/Educ. Program-JFPPA
JHU/PCS	5	5	Communications Workshop-JHU
JHPIEGO		20	Fertility Management Training JHU
CDC		20	Patient Flow Analysis-JFPPA
AVSC		18	Surgical Contraception Demonstration Project

PUBLIC TOTAL: 248 PRIVATE TOTAL: 284

PROPOSED FY 86-FY88 (IN DISCUSSION)

	PUBLIC	PRIVATE	
USAID BILATERAL	2,000		Improving Maternal & Child Health Through Birth Spacing-MOH
REGIONAL/CENTRAL		(Estimated) 1,000	Social Marketing - J. Medical Association (SOMARC)
			Expansion of JFPPA Clinics (MSC)

PUBLIC TOTAL: 2,000 PRIVATE TOTAL: 1,000 (est.)

K E Y

AVSC	Association for Voluntary Surgical Contraception/N.Y.
BUCEN	Bureau of the Census/Washington
CDC	Centers for Disease Control/Atlanta
DOS	Department of Statistics, GOJ
FPIA	Family Planning International Assistance/N.Y.
JFPPA	Jordan Family Planning and Protection Association
JHPIEGO	Johns Hopkins, Program for International Education in Gynecology and Obstetrics
JHU/PCS	Johns Hopkins University/Population Communications Services/ Baltimore
MOH	Ministry of Health
MOLSD	Ministry of Labor and Social Development, GOJ
PF	Pathfinder Fund/Boston
RAPID	Resources for Assessing Population Impact on Development
SFWS	Soldiers' Families Welfare Society/Zarqa
TSFS	Technical Services and Feasibility Studies/USAID
U. of J.	University of Jordan
VSC	Voluntary Surgical Contraception

COUNTRY DEVELOPMENT
STRATEGY STATEMENT
FY 1988

T R A N S P O R T A T I O N

A N N E X C

J O R D A N

C. TRANSPORTATION

1. Sector Overview

a. The Transportation Sector includes a transport system which comprises of roads, railways, ports and airports. Roads are the main mode of transport which mainly serves the transport corridor connecting Jordan with Syria to the north and with the Gulf of Aqaba to the south. This corridor is also served to some extent by railway. Roads supplemented by railways provide an adequate system which ensures the flow of Merchandise from production centers to distribution centers and enables the people to move with liberty and flexibility between different ports of the country. Roads transport play a major role in the movement of the country's main export/import especially the movement of general cargo, cement, potash and transit traffic. Railway carries the bulk of phosphate from the mines to Aqaba. The large network of the road system consists of approximately 2,436 km of primary roads, 1035 km of secondary roads, 2,532 km of rural and 2,000 km of farm roads.

The railway covers the country with a line of about 400 km long extending from north to south. Air travel provides local and international services which cover Jordan and connect it with the outside world. All transport subsectors with the exception of the Ministry of Public Works are connected with the Ministry of Transport for strategic planning only. Following is a summarized description of the institutional setting for all transportation sub-sectors.

(1) Road System

The Ministry of Public Works (MPW) is responsible for design, construction, supervision and maintenance of all highways, rural and farm roads in Jordan. MPW undertakes feasibility studies through consultants to generate the basis for proposals for investment decisions for highway development.

(2) Railway System

The Railway System is managed by two establishments; the Hejaz Jordan Railway (HJR) and the Aqaba Railway Corporation (ARC). The HJR owns the port of the original railway which lies within Jordan. The ARC was established in 1975 with the main purpose to transport phosphates from El Hasa and El Abiad to Aqaba. The ARC owns the railway line between Batn-El Ghoul and Aqaba and rents the railway line between Al Hasa and Batn-El Ghoul, both railways have narrow gauge track of 1.050 meter.

The Hajaz railway line within Jordan was built between 1900 and 1904, with a maximum speed of 30 kph, and an axle load limit of 10.5 tons. The HJR has five diesel locomotives and two steam locomotives. It weekly offers two passenger train service between Amman and Damascus and two freight trains to Dera'a. The main source of income of the HJR is the rent paid by the ARC for the use of its railway line.

The ARC runs a partially rented railway line between Al Hasa through El Abiad to Aqaba. The line has an axle load limit of 16 tons. The amount of phosphate transported by ARC rose from 1.65 million tons in 1981 to 3.13 million tons in 1984.

(3) Ports System

The only exit by sea available to Jordan to the outside world is the Port of Aqaba on the Red Sea. The Ports Corporation is responsible for management,

operation and maintenance of Aqaba Port including design, supervision and construction of its facilities. The Port facilities include:

(a) The main Port of Aqaba dealing with general cargo and phosphates;

(b) The Cement, Roll-on / Roll-off Vessels, Container and Passenger Terminal at Yarmouk Point;

(c) The Industrial Port/Fertilizer Complex at wadi: 2; and

(d) The Oil Jetty.

The amount of transported goods handled through Aqaba Port was 14 million tons in 1985 of which 7.5 million tons were exports and 6.5 million tons were imports. About 3.5 million tons of the imported goods were transit.

The Ports Corporation operates Aqaba Port in accordance with commercial principals and covers its operating costs taking one year with another.

The Port tariff includes the charges levied on the ships, charges for handling of passengers and cargo and other charges. The tariff system is criticised by the Jordan fertilizer industry and the Jordan Phosphate Mining Company as being unfair to them, accordingly, separate port ownerships are advocated.

(4) Civil Aviation System

the Civil Aviation Authority (CAA) is responsible for the management, operation and maintenance of its facilities which include Queen Alia International Airport, Amman (Marka) International Airport and Aqaba International Airport. The CAA is also responsible for air navigation services which include aeronatical information, telecommunications, navigation, technical maintenance and air traffic services. At present, the CAA includes of eleven departments reporting directly to the Director General.

The CAA is not financially autonomous as is the case with the Ports Corporation. This situation does not ensure that all required services are provided by the CAA at least cost commensurate with efficiency and safety.

(5) Alia International Airline Corporation

Alia is a government corporation. In 1985, it transported 1,575, 928 passengers and 47, 613 tons of goods. Currently, Alia owns 19 aircraft including three Boeing 747S, eight Tristars, five Boeing 727S and three Boeing 707S. Alia has two air transport companies; an air cargo company in cooperation with Iraq Airlines and another company for transporting businessmen on 8 small jet planes.

(6) Public Transport Corporation (PTC)

The PTC was established in 1975 to provide bus services to the Municipality of Amman and to provide bus service to places outside Amman as authorized by the Cabinet. The PTC is a public corporation with a board of directors whose chairman is the Minister of Transport. The PTC has extended its services to include Queen Alia International Airport, King Hussein and Prince Mohammad Bridges, Madaba, Zarka and Salt.

(7) The Jordanian Syrian Land Transport Company (JOSYCO)

This company was established in 1977 and is equally shared by the Jordan and

Syrian governments. It has a fleet of about 400 trucks and has no special privileges for obtaining traffic which is received through the Garage Union.

(8) The Iraq Jordanian Land Transport Company (IJLTC)

This company was established in 1981 with equal shares being held by the Jordan and Iraq governments. The company indirectly operates a fleet of 750 trucks under a "Wet-Lease" agreement with two manufactures MAN, and Steyr. It also operates six buses transporting passengers between Amman and Baghdad.

2. Sectoral Constraints on Development

The general constraints facing the sector range from organizational to technical and are summarized as follows:

* Lack of a comprehensive outlook towards the planning and organization of the sector which needs a clear strategy. Therefore, planning and organizational activities are accomplished without coordination among various sub-sectors.

* Non availability of sufficient numbers of specialized administrative and technical personnel and the migration of personnel to the private sector and neighboring countries.

* Inefficiency of most of facilities of the sector which function below their operational capacity. Low standard of maintenance and lack of advanced technology in this field.

* Decline in the number of specialized training programs in general.

3. General Progress Made to Solve Problems in the Sector

The progress made to solve the problems identified in the five year plan has been acceptable. However, no progress has been made to solve the specific problems which are not part of the five year plan.

The initiatives to solve the problems include those of the GOJ, private sector and foreign donors. The total cost of the Plan for the sector is JD 480,526.000. The GOJ contribution is JD 177,621,000, the private sector contribution is JD 171,000,000 and the foreign donors (loan and assistance) contribution is JD 131,905,000.

SUMMARY OF FINANCING FOR VARIOUS SUB-SECTORS
OF PUBLIC TRANSPORTATION PROJECTS
(JD 000)

PUBLIC SECTOR

SUB SECTOR	GENERAL BUDGET	LOANS	FOREIGN LOANS	SELF FINANCING	ASSISTANCE	TOTAL
Roads	1144900		107200	-	-	252100
Railways	10330		17640	-	-	27970
Port Corp.	-		5740	6850	-	12600
Civil Aviation	6095		-	-	600	6695
Alia Corp.	-		-	5000	-	5000
Metorological Services	446		-	-	-	446
Public Transportation Corp.	3450		715	550	-	4715
T O T A L	165221		131305	12400	600	309526

PRIVATE SECTOR

SUB SECTOR	GENERAL BUDGET	LOANS	FOREIGN LOANS	SELF FINANCING	ASSISTANCE	TOTAL
Railways		71000				
Private Sector Investment		100000				
T O T A L		171000				

Total Cost of transportation (public and Private) = 309526 + 171000 = 480526

4. Specific Needs in the Sector

A. The road sub-sector is in need of construction/upgrading of 400 kms of primary roads, 300 kms of secondary roads and 700 kms of rural roads. Considering all transport projects included in the five year plan it appears that significant emphasis has been given to the roads sub-sector. This is indicated by the fact that road development will cost JD 252,100,000 which is 81% of the total investment for the public transportation sector (JD 309,526.000) and 52% of the total investment of the public and private transportation sectors (JD 480,526,000). The specific constraints facing this sub-sector are:

* Non compliance with the axle load limit which leads to road damage and heavy losses.

* Low standard of maintenance and lack of advanced technology in this field. There is an AID on-going project to help Ministry of Public Works to improve its road maintenance capability.

* Unfair participation in the cost of road construction by the users.

* The growing number of road accidents

b. The railway sub-sector is in need of rehabilitation of 206 kms of line between Al Hasa and Aqaba, procurement of 90 hopper cars and provision of adequate training, including training equipment. The specific constraints facing the railway sub-sector are:

* Inefficient management due to dual operations. It is advisable that ARC should become a part of Jordan Phosphate Mining Company, because its sole purpose is to dual phosphate.

* The growing number of railway accidents which is attributed to in adequate railway facilities.

* Lack of adequate training programs to improve management, operating and maintenance capabilities of railway personnel.

c. The Ports Corporation is in need of construction of a passenger station at a total cost of JD 2,000,000. It also needs to procure loading and unloading equipment at a total cost of JD 5,000,000.

The major problems facing the Port corporation are:

* Development and expansion of the port facilities at the south coast are not based on a master plan.

* The phosphate dust generated at Aqaba during phosphate loading and unloading has adverse impacts environmentally.

d. The civil aviation sub-sector is in need of radars to cover Jordan airspace, improvement / upgrading of services for Queen Alia Airport, improvement of night services at Aqaba Airport and improvement of airsafety. The total costs of projects required are JD 6,695,000.

The specific constraint facing this subsector is that Landing charges are not charged to all airport users which leads to financial weaknesses in the CAA (Alia does not pay landing fees).

e. Alia International Airline is in need of procurement of land equipment needed to upgrade its technical capability regarding air transport. The cost of this equipment is JD 5,000,000. There is no specific constraints facing Alia in accomplishing its need.

f. Public Transportation

The PTC is in need of new maintenance workshops, computerization of financial and technical information, establishment of a transmitting station for radio communication and procurement of 150 new buses. The total cost of the PTC requirement is JD 4,715,000.

5. Transportation

a. GOJ Strategy

GOJ lacks a comprehensive outlook towards the planning and organization of the sector which needs a clear strategy. Therefore, planning and organizational activities are accomplished without coordination among various sub-sectors.

The strategy in the New Five-Year-Plan includes the following objectives:

* (1) Build the infrastructure needed to support the development taking place in other sectors of the economy, (2) enhance the operational efficiency of key operating agencies through modernization, (3) conserve energy by promoting rail transport and (4) improve manpower planning. The government attaches highest priority to the improvement of international trade routes carrying substantial quantities of phosphate, potash, fertilizers, cement and general cargo vital for the economy of Jordan and neighboring countries.

6. Proposed USAID Strategy

USAID will concentrate on improving East-West transportation linkages to facilitate East Bank-West Bank commerce and other export flows.

a. Policy Dialogue Issues

(1) Diesel and Aviation Fuel Subsidy

The transport sector accounts for 50% of the energy consumption of Jordan and uses about 75% of the imported petroleum. At present, diesel oil and aviation fuel are subsidized. Fuel consumption in the transport sector is related to industrial activity, personal incomes and the price of fuel itself. Therefore, removal of fuel subsidies may reduce fuel consumption and create a fairly competitive environment for various sub-sector.

(2) Limit Public Transport Corporation activities to Amman and withdraw from inter-urban routes. Encourage private transport to operate on inter-urban routes.

(3) Road user charges at present are not adequately applied. At present large fleets of heavily laden trucks does not pay their share for road wear. If this situation is allowed to continue undue advantage will accrue to heavy trucks which do not cover the cost for the provision and maintenance of the road system as compared to the railways.

Regarding heavy traffic flows from Iraq, Jordan does not directly cover all costs from specific road users, but Iraq grants considerable economic privileges and financial assistance to Jordan in recognition of its goodwill. Thus formulation of charges requires political flexibility and commercial acumen to insure optimum benefits for Jordan.

(4) Axle-Load Control

Unregulated axle loads of heavy trucks have severely damaged the primary roads in Jordan. If highway overloading remains unrestrained, the road network will continue to deteriorate rapidly and total transport costs, including the cost of the infrastructure will remain unduly high. The Government has recently enacted a bill limiting the axle load. The Government should ensure effective enforcement of current legislation regarding maximum permissable axle loads, gross vehicle weights for particular vehicular configurations and vehicle dimensions.

2. POSSIBLE USAID PROJECT INTERVENTIONS

The following projects should be considered for USAID financing

* Construction, widening and upgrading of Naur - Dead sea Road at a total cost of JD 17,500,000. This could be financed under economic support funds. This road when upgraded will facilitate transport of products (vegetables, fruits etc) from West Bank to East Bank.

* Establishing an institution in cooperation with the private sector to help in technology transfer to local contractors. This project could be funded under PETRA Project.

* Technical Assistance to Aqaba Region Authority to help in controlling environmental pollution caused by phosphate loading and unloading at Aqaba. This could be financed under the private sector initiative under the Industrial Pollution Control Project or under TSFS.

* Procurement of loading equipment for the Ports Corporation. This could be financed under the Commodity Procurement Program (CIP).

* Procurement of a crane for the Aqaba Railway corporation at a total cost of JD 300,000. This equipment could be financed under CIP.

* Technical Assistance to ARC to improve the capability of its personnel and to procure training equipment at a total cost of JD 520,000. This could be financed under TSFS and CIP.

* Procurement of 150 buses for the PTC at a total cost of JD 3,250,000. This could be financed under CIP.

3. ESTIMATE RESOURCES NEEDED

About $65,000.000 are needed by USAID to finance possible projects.

4. CONTINGENCY "SHELF" RESOURCES

Contingency "shelf" resources might be needed if peace in the legion is established are about 100,000,000 and would be urgently needed to upgrade/widen Amman Nablus road and Jerusalem Dead-Sea road, if peace is established in the region.