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INDEX

Introduction 1

Water Resources Development. . 7

Agriculture 13

Highways 19

Education 22

Public Health 26

Industry 33

Tourism 36

Public Administration 39

UNITED STATES ECONOMIC ASSISTANCE TO JORDAN 1952-1962

Introduction

The impact of American economic assistance on Jordan since the inception of the first US aid program in 1952 can hardly be exaggerated. Indeed, it is not too much to say that without this assistance the Hashemite Kingdom of Jordan would in all probability have long since perished in the crossfires of politics in the turbulent Arab World. In 1956 (Suez) and again in 1958 (Iraq and Lebanon) it appeared, in fact, that the little Kingdom would not survive from one day to the next; from Washington the odds against Jordan's future appeared almost overwhelming. But the US recognized that Jordan's collapse would very likely set in motion a chain of events which could all but destroy the chances of understanding or acceptance in the Arab World of basic Western institutions and ideals. There would probably be a resumption of Arab-Israeli hostilities and an intensification of the East-West conflict, very possibly leading to the necessity of US military involvement to forestall direct Soviet intervention. The decision to maintain and reaffirm US support thus was taken in the full knowledge that though the chances of success were slim, the preservation of Jordan was important to the security interests of the United States.

The gamble paid off. Jordan stands today, in 1962, as an independent country, a small but full member of the community of free nations. In four years of relative stability since 1958, Jordan has moved perceptibly away from the brink of disaster and has mounted a determined drive to develop its domestic economy. Grave political dangers remain; and the present hopeful trend could be quickly reversed. But with each passing month, Jordan's growing economy and rising employment provide additional insurance against the storms of Middle East politics.

Recent developments in Jordan are particularly encouraging. In the fall of 1961 a comprehensive 5-year economic

development plan was adopted. Shortly thereafter, in January 1962, young King Hussein, western educated, western in sympathies, appointed a new government, headed by Wasfi at-Tal and composed primarily of young (average age: 41), well educated and progressive men. The at-Tal government has demonstrated remarkable energy and initiative; and we in USAID/Jordan feel we have witnessed, not only in the government but among the people of Jordan, the awakening of a new spirit of hope and pride of accomplishment.

A fast start in implementing the Five-Year Plan has been achieved. Vigorous efforts to obtain investment funds have been successful and the development assistance provided by the US is being supplemented significantly by loans from Kuwait, the International Bank, the United Kingdom and Germany. Investment is being focussed on income-generating projects primarily in irrigated agriculture, water resource development, tourism and the exploitation of rich deposits of phosphate and potash.

But Jordan is not relying on foreign aid alone. At the same time, measures are being taken to increase government revenues, to improve fiscal management procedures and to reduce costs of government through increased efficiency. The announced aim of these parallel programs is to eliminate within ten years the long standing deficits in Jordan's balance of payments and in the government's budget; and now, for the first time, serious observers are willing to grant that with luck, hard work and continued careful planning, Jordan may achieve solvency.

The ten-year transition from despair to hope has depended in no small way on American aid. The purpose of this paper is to review the record of US assistance in Jordan and to explain the vital role it has played.

Background

The first contingent of American aid technicians to arrive in Jordan in 1952 found the country in a precarious situation. The end of the fighting which accompanied the termination of the British Mandate in Palestine in 1948 had found the famed Arab Legion of King Abdullah of Trans-Jordan in possession of a substantial area west of the River Jordan extending some 75 miles from north to south and 35 miles from east to west, including the "Old City" of Jerusalem. Abdullah, a man of action, had promptly annexed this territory and the Kingdom of Trans-Jordan was declared henceforth to be the Hashemite Kingdom of Jordan. The resident Palestinian population, some 400,000 persons, were admitted immediately to Jordanian citizenship, as were some 600,000 refugees from the Israeli-occupied portions of Palestine. Thus, at one stroke, the population of Jordan more than trebled; so too, inevitably, did the problems confronting its government.

Trans-Jordan, until late 1948, had been a relatively uncomplicated country of some 500,000 Arabs. With a primarily agricultural, essentially tribal, society and only a small army, the Emirate had relied heavily on British guidance and financial support for the country's modest administrative and military needs. But the new position plunged Jordan into a vastly more complex and commensurately more expensive situation. The need to provide government services for larger military and public security forces; enlarged requirements for food, shelter, clothing, medicine, and the like, for the throngs of penniless refugees; all required money on a scale beyond the capacity of Jordan's meager resources. Additionally, the political tensions generated by these new conditions and by the emergence of the new state of Israel in the midst of the Eastern Arab Community of Nations reached an almost unbearable pitch. Out of these tensions came the assassination of King Abdullah in Jerusalem in 1951, a further blow to stability. To make matters worse, in the following year, 1952,

the United Kingdom, beset with a sterling crisis at home and overcommitted abroad, made the decision to cut back sharply on British aid to Jordan. The outlook for Jordan appeared dark indeed; but at this critical moment help appeared from a new quarter. The United States, increasingly concerned over the rapidly deteriorating stability of the Middle East, reached a decision to support the government of Jordan to the extent necessary to prevent its collapse.

The United States Program of Economic Assistance

The instrument selected to provide the major portion of such support was the US Foreign Operations Administration, of which the present Agency for International Development is a direct lineal descendant. An agreement was quickly concluded with the Jordanian government and with notable speed the US Operations Mission was organized in Amman. Its mandate was clear and direct: to support the government in meeting the emergency requirements thrust upon it, and to launch a modestly proportioned development program, with money and technical assistance, which in time, hopefully, would permit Jordan to shoulder a greater portion of its own responsibilities.

Early activities of the new Mission were inevitably ad hoc and largely dictated by need and opportunity. Little thought could be given to long-range, careful planning for Jordan's ultimate viability for the very good reason that Jordan apparently had no long-range future. It had, in fact, only a doubtful chance of surviving from one fiscal year to the next.

The early hasty surveys of Jordan conducted by the new Mission revealed little that was greatly encouraging. The Kingdom's finances were in chaos; there was general unemployment; only small industry existed, and the recent war and continuing unrest pretty well discouraged tourism. Agriculture had changed little since Biblical times, and was totally insufficient to support Jordan's new population. Such roads

as existed were narrow and rough, more suitable for animals than for automotive equipment. What educational system there was had been disrupted; schools and teachers were non-existent in many rural areas. Malaria was prevalent in the low-lying Jordan Valley; malnutrition was general in the whole country, and villagers and Bedouins alike seemed hopelessly unaware of the need for sanitation. Above all, there was the lack of water. Almost no irrigation of any magnitude was practiced, livestock died from thirst in drought years and village growth was inhibited by dependence on clogged springs and silted reservoirs. Even the principal cities, Amman and Jerusalem, were without adequate water supplies, and suffered annually toward the end of the dry summers.

There wasn't very much on the positive side, but what there was proved to be the essentials of life for Jordan. Foremost, of course, was the population, a cheerful people, not afraid of hard work and not unaccustomed to working with foreign advisors. Mainly farmers, they lived in small villages or settlements near a hopefully perennial source of water. They planted their crops in the fall, before the winter rains, and prayed that enough rain would fall at the right time. When it did the yield would be good, because the soil itself is rich; when the rains failed as they do on an average of one year in three, or were deficient as they have been in the last eight years in ten, there was no money in the village, and little enough food. There was nothing to do but replow the hardened earth and hope for a better season next year.

A smaller, but no less significant asset in Jordan was a well educated merchant and professional group, drawn from urban centers around the country, which have proved to be capable of a fairly high level of sophisticated leadership.

In addition to its people, Jordan had a few other advantages. Old Jerusalem, holy city to three great religions, is within Jordan, the truce line dividing the city along the line of the old city walls. Additionally, Jordan had some interesting

historical sites: Petra, Jerash, Karak. But, they were almost inaccessible, and no attempt had ever been made to provide facilities for tourists. Part of the Dead Sea lies within Jordan's frontiers, and its rich mineral soup offered possibilities for development. Some primitive mining for phosphate and a very limited amount of light industry--glass, pottery, knick-knacks--in the Jerusalem area completed the picture. Discouraging as it was, something had to be done if the country was even to stand still, and an incredible amount needed to be done if Jordan was to move ahead.

The overriding need in 1952 was for action aimed at reducing suffering and social unrest. People needed jobs, food and medical care.

The list of problems demanding action, it soon became apparent, covered a very wide range. Water resources needed development. The whole agricultural field offered opportunities for improvement. Due attention needed to be given to Jordan's human resources, and assistance to the educational system offered good possibilities. A high incidence of disease, parasites and nutritional deficiencies called for a program in health and sanitation. Roads were needed, of both large and small capacity, to permit a higher volume of economic intercourse. Industrial development, on a modest scale, could be useful in reducing Jordan's dependence on imports. And minerals, to the extent commercial deposits could be found, would also merit development.

Programs were initiated in these several fields, programs which were designed both to raise the level of economic activity and to provide employment for the disturbingly large number (better than a third of the work force) of jobless and hungry laborers in Jordan. The nature of the assistance activities undertaken in these sectors is described in the following pages of this paper.

Water Resources Development

Water came first. From the earliest times it is apparent that water, or rather the lack of it, has been the major preoccupation of whatever people lived in the country. The Romans, who occupied the area for several centuries around the time of Christ, apparently thought much as we do on the subject of water. They put in untold thousands of man-years of work in the development of springs and the conservation of rain water. Miles of tunnels were hand-hewn into the bases of hills to tap water-bearing strata, and reservoirs and dams were located where they could catch the run-off from the hills. In some respects the Romans had an easier job than the present day Jordanians, because the hills and mountains were then well forested. Today most of the hills are bare, and rain which should soak into the ground, feeding the springs and maintaining the water table, instead pours down the wadies and is wasted in the Dead Sea. Reforestation is underway, but it is a slow process, and not helped by the all-devouring herds of goats, which the government, at the moment, seems powerless to control.

The Jordan Valley appeared to offer the best possibilities for development, and in 1952 the Baker Engineering Co., joined a little later by Harza Engineers, began the studies and surveys leading to a master plan for water development and irrigation of the Jordan Valley. The master plan was a full-scale study of literally everything which could contribute toward the improvement of Agriculture in the area. Included were test drillings to establish the heights of water tables and the availability of ground water, measurements of the waters of the Yarmouk and the side wadies of the Jordan Valley, surveys to determine the amount of irrigable land which could be put into production, soil studies to provide information on the nature and potential productivity of the soil itself, and a major engineering effort to determine the feasibility of taking the water of the Yarmouk River for use in the unirrigated parts of the Jordan Valley.

Between 1954 and 1960, other more immediate projects were put into operation. Some 94 wells were drilled, 31 of these being in the northern desert. Of the remaining 63 wells, 24 were productive, having a combined capacity of 4,500 gallons per minute. Some of these wells were put to use in irrigation and municipal water supply and others capped for future use.

A primary source of water for many villages and desert tribes is a storage basin or cistern. Some 15 Roman-built cisterns were cleaned and repaired under these early projects, for a combined storage capacity of some 14 million gallons. These cisterns fill during the seasonal rains and many provide a water source all through the hot summer months.

Villages as well as desert tribes are often dependent upon one single source of water provided by a spring. Twenty-four such springs were cleaned and improved to increase the flow of water and in most cases a pollution preventer was constructed at the spring mouth.

The sharp increase in available water resulting from these programs had a tremendous impact. For the first time there was reasonable assurance that a man's herds would not perish from drought, and some of the municipalities had their first taste of running water. Admittedly it did not run very fast, it still doesn't, and there is still a water shortage in dry years, even in the major cities. But now these communities, which previously were limited by lack of drinking water, could consider expansion.

After a preliminary planning period, the Jordan Valley master plan was launched. In 1957 the Baker-Harza Company employed Mr. McBirney, who had been for many years the Chief of the Canal Design Section of the US Bureau of Reclamation in its Denver Office. Under his supervision, with the help of two other American engineers, a group of Jordanian engineers

completed the design drawings and the preparation of the construction specifications for a portion of the proposed development. This portion called for the construction of approximately sixty-nine kilometers of concrete lined Main Canal which was to be supplied with water through a concrete lined tunnel. This tunnel, approximately one kilometer in length brought water from the Yarmouk River under the mountains to a point at the head of the valley well above the elevation of the River Jordan. The irrigable land on the east side of the Jordan Valley consists of river terraces in a three to five mile wide belt sloping down to the river. The Main Canal, running along the higher ground allows water to be taken off by laterals, and fed by gravity to the lower lying fields.

For development purposes the initial project, known as Stage I of the East Ghor Irrigation Project, was divided into three sections each approximately twenty-three kilometers in length. The first two sections were designed to irrigate some eight thousand acres each and Section III will serve approximately eleven thousand.

The United States agreed to assume the financing of Section I of the Main Canal and construction bids, on a world-wide basis, were requested by the Jordanian Government. Imprese Venete, an Italian firm, was selected as low bidder, and commenced the tunnel excavation in the late fall of 1959. In the meantime, the Jordanian Government had commenced the excavation of the canal section using its own labor crews. This excavation was completed in November 1959. At about this time, the United States Government agreed to finance as well the irrigation distribution system of Section I, and the work was started early in 1960. The East Ghor Canal Authority was formed as an agency of the government to perform the administrative and engineering duties on the project.

In the spring of 1961, the United States Government agreed

to finance the construction of Section II of the Main Canal, together with the pertinent distribution system. Excavation of Section II of the Main Canal was started by Imprese Venete in May 1961 and the work in Section I in connection with the canal construction was completed in August 1961. Lining of Section II of the Main Canal was started in September 1961. At about this same time the first tracts of land as provided by the terms of the East Ghor Law of 1959 were distributed to the new owners.

During the period of construction there has been a marked improvement in the design, engineering and construction capabilities of the East Ghor Canal Authority's Jordanian engineering and construction personnel. This accumulating fund of practical experience augurs well for the Jordanian economy through the continuance of all types of future development projects. Jordanian engineering and construction personnel are now becoming sufficiently competent to handle most types or projects with only minimum assistance from foreign sources. Many well-educated and well-trained technicians are available who need only advice on how best to apply their considerable technical knowledge to the practical operations.

There has also been a notable improvement in the land development and farm extension branches of the East Ghor Canal Authority's organization which is expected to result in the development of more efficient farmers and better utilization of Project land. The operating law of the Authority has been revised to permit a more democratic and intelligent assignment of lands, redistribution being based on a maximum holding of about fifty acres and a minimum holding of seven and one-half acres. This prevents the formation of vast estates and at the same time discourages mere subsistance farming. Water distribution is planned on an equitable basis; each farmer is charged on a graduated basis for the water he has actually used. Farmers are benefiting from an irrigation system and drainage

facilities which equal or exceed in quality and efficiency the great majority of such systems anywhere in the world. The land development is also equal to or better than any of our Stateside projects.

An impressively high productivity per acre is already apparent in Section I which came under irrigation in the spring of 1962. With further experience and technical assistance in the proper use of water, fertilizer and good farming methods, it is believed that present production can be doubled. Concentration on good packing, grading, storage and marketing practices will still further augment the farmers financial return.

Increased job opportunities occasioned by the construction of the canal have almost doubled the pre-Project population in Stage I, now approximately fifty thousand people. With this influx there has been a commensurate increase in housing construction in the villages, with an accompanying increase in school, hospital and transportation facilities in the area.

When it is considered that only 30% of the new development in Stage I has been completed, it is evident that an even greater immigration can be expected after construction is completed. A number of small industries are already coming to the Valley and these are expected to be followed by packing-houses, canneries, etc. There has also been an increase both in quality and quantity in the roads servicing the area.

While the actual farm development is only getting underway, in most of the area early results are encouraging. The East Ghor project is small by American standards but its impact on little Jordan, from both the financial and humanitarian aspects, will be significant. The fertile, low-lying (more than 1,000 ft. below sea level) and warm Jordan Valley is aptly described as an "open air greenhouse," and its potential

productivity, given modern farming practices and a year-round growing season, is unparalleled anywhere in the Middle East.

In 1960, the Jordan Government established the Central Water Authority (CWA) to coordinate the development of the water resources of the entire country, excepting only the East Ghor Canal area. CWA is supported financially by USAID/J and up to the present time has been under the leadership of an American Director General recruited by the Mission and seconded to the Government for this purpose. To an increasing extent the work is being competently handled by Jordanian engineers and it is planned by 1964 to turn over the leadership to the Jordanians.

The CWA has mounted an extensive water development and conservation program throughout the Kingdom, building small storage dams in many wadies, developing and improving springs, designing village and municipal water projects, and generally interesting themselves in all phases of water utilization. At the same time an extensive geological mapping project has been carried on, one significant result of which is the discovery of what appears to be an important water basin near the capital city of Amman.

Interestingly enough, much of CWA's work has been devoted to the cleaning and restoration of ancient Roman reservoirs and cisterns. Throughout centuries of neglect these had filled up with silt and in some cases suffered earthquake damage. Some of these works are enormous. Jiza (not far from Amman), for example, holds 23 million gallons--enough to last its desert customers over two years of drought--and was restored with an investment of less than $25,000.

CWA's systematic and wide ranging attack on Jordan's water problem is having a significant impact on the economy. Wells have been drilled which furnish water to the important cities of Aqaba, Amman, Zerka, Ramtha, Nablus and Hebron. Other wells are under way to provide a long-term water supply for Jerusalem, Bethlehem and Ramallah. Other wells have been drilled and desert pump houses built with pumps, tanks and water facilities in eight

widely dispersed areas to provide water for nomadic Bedouins and their flocks. Water systems have been designed for the cities of North Shuneh, South Shuneh, Karak and Sweileh.

A recent successful effort under CWA supervision, one which made headlines throughout the Middle East and in the United States, was the piping of well water from Hebron to the parched communities of Bethlehem and Jerusalem in August 1962. This was a combined CWA, Jordan Arab Army and USAID effort. Some 43 kilometers of invasion pipe obtained from US Army stocks in Europe were laid within 20 days after delivery of the pipe in Aqaba, bringing 200,000 gallons a day to these cities pending completion of a permanent solution of their age-old water problems.

Agriculture

As Jordan is primarily an agricultural country, some of the earliest USAID/J Projects were aimed at the improvement and modernization of agricultural techniques and practices. A decade ago, Jordan lacked qualified personnel in practically all fields of agriculture. To be sure, a Ministry of Agriculture was in existence, but it had a very limited number of college and university graduates on its staff and it was coping only ineffectually with existing agricultural problems or with the need to render effective services to farmers and farming.

The farmers in turn, whether they knew it or not, badly needed every kind of help to improve their farming practices.

The sad state of agriculture in the country was vividly demonstrated in the dependence on imports of foodstuffs, even of the very commodities that Jordan itself was producing. In fact, food and feed imports constituted, as they still do today, the largest category of imports. Large quantities of wheat, wheat flour, rice, barley, sugar, even fruits and vegetables were imported in 1952, and still are today, though less in proportion to total imports. Just to pinpoint the kind of drain these imports have been on the country's resources, a few figures can be very revealing. For example, in 1952 about $7 million was expended annually for wheat, barley and millet; another $2 million was spent on rice imports; still another $1 million was spent on live animal imports; despite Jordan's own potential in this field; $1.5 was paid for lumber imports, suggesting the need for reviving the forests of old that once covered these ravaged hills. Even home grown items like potatoes, beans, olive oil, eggs, dates, cheese, tobacco, peanuts, apples, and so on -- all were hauled into the country at considerable cost, while all of these things were being grown already by Jordanian farmers, but not in sufficient quantity.

The total cost of all imports to feed the country added up in 1952 to a staggering $20 million -- in other words, to over 40 percent of all imports. (Today it is a little more than 30 percent). There is no doubt that the farmers needed help in doing a better job, both in feeding their families and in feeding the country. In the beginning of the US assistance program, as these facts clearly show, the needs in farming went clear across the board.

The early projects covered almost all fields of agriculture: agriculture machinery, plant protection, horticulture, agronomy and improvement of livestock and poultry including control of their respective diseases. As agricultural extension programs were developed, strong emphasis was placed on agricultural education. Marginal rainfall in most of Jordan imparted harvest estimates each year with a heavy element of pure conjecture, and Jordan agriculture was eventually to be pointed toward increased emphasis on irrigation, as we'll see. But investment in irrigation would take time and the need was for an across-the-board program in the beginning; focus could come later. The broad scope and relative success of the early program can be illustrated by a few representative cases.

Jordan depended, in 1952, on animal and man power for practically all farm work; in the whole country there were only 50 pieces of farm equipment. Only three tiny commercial firms dealt with farming machinery. American agricultural experts first organized demonstrations throughout the country and provided about twenty assorted tractors, plows, and reapers. Suppliers of agricultural equipment throughout the world were then invited to send representatives, and to demonstrate their own types of equipment at what would be called rather modest country faire. Jordanian farmers, although just as conservative as their counterparts the world over, under the combined stimuli of U.S. Agricultural experts and farm machinery salesmen soon

came to realize the economic advantages of mechanization. Today there are over 800 pieces of agricultural equipment in the country, and 12 private firms are busy selling more. So long as drought conditions don't ruin the results, the increase in acreage under cultivation and the improvement in plowing and harvesting techniques is impressive. Where this machinery is used together with an assured source of water, the gains are immediately apparent.

Take another example: such a basic thing as seed improvement. Prior to 1952 the normal farming practice was to plant whatever remained from the previous years crops. Harvests were inclined to be poor. To combat this practice a seed farm was established at a place called Shobak in southern Jordan previously considered as having only marginal grazing land. A well was drilled and a pump installed, and about a 100 acres were devoted to growing foundation seed. This seed is in turn sold to licensed private growers who use it for the production of further quantities of seed which are sold to the farmers at reasonable prices. This single operation has resulted in far better crops. The Shobak Seed Farm Project, in conjunction with Wadi Fara Agricultural Experimentation Station, is constantly introducing new varieties of seed better suited to Jordan's climate and soil.

In Jordan, as in most of the Middle East, the chicken was once looked upon as a bird, and treated as such. Birds, happily, don't have to be fed, they just run around picking up what they can get. The resulting fowls were scrawny and unbelievably tough, and their eggs small and strong. Demonstrations of modern chicken-ranching techniques and the importation of thousands of day-old chicks have wrought a complete revolution in this particular phase of agriculture. Today there are some 35 large chicken farms in Jordan, all having several thousand chickens. Farmers are importing some

60,000 day-old chicks each month mainly from Holland, inoculating them, feeding them correctly, and producing excellent quality fryers and eggs for an ever expanding market.

These examples are only three of many suggesting the breadth of the agricultural program launched in Jordan. The results have been almost as broad, and even in the relatively short period of ten years, three of which were years of particularly severe drought, agricultural expansion in Jordan has been respectable.

Inevitably, some of the earlier projects experienced difficulties. For example, experimental dikes were placed across a few wadis, and the land behind them plowed and sown. Runoff of winter rains backed up behind the dikes, the water soaked into the soil and resulted in an excellent crops. Following up on this promising result, funds were spent in building other dikes. Unfortunately, for the next five years not one drop of rain fell in the area, and when at last a storm appeared the population had neglected the dikes and the runoff was not collected. Range management was another headache. No sooner was a new water source developed than a horde of Bedouin would arrive and completely overgraze the area. In one case the army had to be called out to prevent five thousand camels from moving in on an area which had just been planted with an experimental grass.

Today, an effective agricultural extension service, called the Rural Development Department (RDD) is educating farmers in all phases of crop management and animal husbandry. Rural nursing services are in existence, and the RDD is carrying out a comprehensive community development program. In 1958 a department of research was established in the Ministry of Agriculture, and many Jordanians have been graduated from American agricultural institutions. The East Ghor canal

project is coming into production, and the potential productivity of the irrigated land in the Jordan Valley appears very high.

The impact of irrigation on the stability and growth of Jordan's agriculture is quite dramatic over the past decade. Figures can be boring, but the impact of potential of projects such as the East Ghor Canal can best be measured by reference to the basic percentages which describe a fundamental shift in the structure of Jordanian agriculture. In 1952, non-irrigated output of grains, fruits, and vegetables was about 75 percent of the total output of these items, while irrigated output was only about 25 percent. In 1961 irrigated output had increased by nearly four times since '52, and was more than 50 percent of the total output, while the tonnage of non-irrigated crop production had actually declined by almost 30 percent since the earlier year. Total farm output has been creeping up (except in drought years), but the hero in the performance is clearly irrigated farming. In a drought year, such as 1960 was, irrigated farming, in fact, saves much of the farm community from outright disaster.

These facts help to explain why USAID/J is putting renewed drive behind our support for irrigation systems in Jordan. The East Ghor Canal project will help to relieve the citizens of this country from the traditionally "roller-coaster" existence caused by wildly erratic annual and seasonal rainfall. Irrigation provides a source of water which in turn, as more lands come under its steadying influence, promotes stability and growth to agricultural output, incomes, and to the political and economic life of the country. Best of all, the increase in earnings will contribute to narrowing both the government's budget deficit and the country's balance of payments deficit. Every assault we make on those gets us a little closer to that light at the end of the tunnel.

Much, however, remains to be done. A country which was largely a subsistence area a generation ago cannot physically or mentally make an instantaneous jump into mid 20th century agricultural habits with any degree of comfort or competence. It will take a number of years for much of what the trained Jordanian Agronomists know to filter down to the mass of the farmers, but the knowledge is there, and most important, the organization to pass on this knowledge is in place and functioning.

USAID/J intends to keep its task force of technicians on the job of persuading Jordan's farm institutions- its research, extension services, irrigation experts - to focus on still greater gains from irrigated farming through training in the use of scarce water, and through more up-to-date marketing of the ever growing volume of crops flowing from irrigated farms.

Highways

When the first US highway project was initiated in Jordan in 1953, only a few motorable roads existed in the Kingdom. The Romans had built a few, although not up to their usual standards; the Crusaders and Arabs had evolved a fine network of camel trails, unfortunately of not much use to modern transport; and the British had constructed a limited number of paved, if narrow, roads between some of the most important centers.

The Palestine war had had a particularly upsetting effect on communications within the Kingdom, for many of the front-line villages and towns now found their previous access roads cut by the new Israeli frontiers. Access to the sea was interrupted; in the past, Jordan had relied on the port of Haifa for its limited imports and exports, but now Aqaba, in the extreme south, was the only port available and it was almost inaccessible to the rest of the country.

There were many towns and areas in Jordan which had not in the past been deemed important enough to be served by any form of road, but which were areas of potential development. It was quite impossible to visit many of these places by motor vehicle, and no development could take place until they became accessible.

Road construction and maintenance in 1953 was limited to a small amount of work done by hand labor. There was a pressing need for adequately trained engineers, technicians, equipment operators and other supporting personnel necessary to carry out a comprehensive road building and maintenance program. And there was not one piece of modern road building equipment in the country.

The first "American" road built in Jordan was the section

of the main east-west highway system between Amman and the Dead Sea. The road from Amman drops abruptly from a high rolling plateau of about 3,000 feet elevation down to the shore of the Dead Sea, elevation minus 1,200 feet, in the space of about 15 miles through wild and mountainous terrain. The road is wide and good, of typically U.S. design. Instead of crawling around spurs and winding in and out of canyons, it cuts through hills and spans gullies in a series of mild curves and gentle gradients. The "Point IV Road", as it is known, has halved the time previously required for the trip and made a tremendous impression on the whole nation.

At the time this is being written, the final east-west section connecting Jerusalem to the Dead Sea and Amman is within a few weeks of completion. When finished, the improvements on the road will have reduced travel time by car between these two cities by about 50%. All of the export and import of commodities on the West Bank are transported over this highway, (475 trucks and busses per day) and this saving in time results in less cost to consumer and improved service for business, which is of economic benefit to the country. One veteran bus driver states: "The trip is faster and safer, more people are going back and forth today". Now that the southern end of the Jordan valley has been made accessible, and the malaria wiped out, small farms and roadside stands are springing up all along the highway. A modern hotel has been built on the Dead Sea beach -- "Jordan's Florida" -- for the few cold months of winter. Joshua would never recognize modern Jericho, which has experienced a real revival as the result of improved access to markets for its tropical agriculture and easier accessibility to tourists.

Other good roads were built to connect the capital with the road to Damascus on the Syrian border in the north, and British funds and engineers built an equally good desert road connecting Amman with the port of Aqaba.

The road program also has stimulated a desire by village people for self-improvement, which is demonstrated by the fact that they have asked for assistance and have cooperated in constructing and improving roads serving their communities. For example, in one half-deserted border village on the West Bank, which had lost its outlet to the West by partition, a villager, when pointing out the new houses that had been built after a new road to the east had been constructed, explained: "The people came back. Now that the farmers can get crops out to market, they can earn a living."

Today, in 1962, the bulk of the road building program has been completed. Future plans call for a shift in emphasis from road construction to a well organized, equipped and effective program for maintaining and improving the road system as it exists today. The needs in other areas of economic and social development are great and it is intended that highway expenditures remain in balance with the overall economic development requirements of the Kingdom.

Education

Ten years ago, in the small, newly independent Hashemite Kingdom of Jordan, education was a privilege and not a right. Today, in 1962, although the situation is not completely reversed and schooling is not yet available to all, educational opportunity has become the mark of the many and not of the fortunate few.

Responding to the request of the Jordanian government for assistance in this critical time of need, the United States in 1952 moved quickly to provide financial and technical assistance in the development of an educational system for the country as a whole.

There was a plentiful supply of school-age children in the early 1950's but the problem of educating them looked well nigh insoluble. The number of schools was grossly inadequate and there was a severe shortage of teachers; even if school facilities could be built there would be no one to utilize them. There was a semi-educated class from which teachers might be drawn, but nowhere in Jordan was there a teacher training school, and the cost of sending teachers outside the country for training appeared prohibitive. Perhaps an untrained teacher might get by in a rural elementary school, after a fashion, but this would be manifestly unfair to the children. In the higher grades there was no question of trying to get by with amateur teachers, however willing; fully trained and qualified teachers had to be found somewhere. The Government of Jordan was not unaware of the need for more and better qualified teachers, but completely lacked the funds for construction of training facilities at home, or for educating them abroad.

In cooperation with the Ministry of Education, the US Mission approached the problem of teaching the teachers. Four separate teacher training centers were established, construction starting in 1952. Two of the four centers, designed to provide two years of college level preparation for male and female teachers, were opened in January 1954. Each of these centers was complete with classrooms and library, and with boarding facilities for 110 students. A third college for men was opened in 1953; it has similar facilities and specializes in training teachers for service in rural communities. In 1958 a fourth center was opened with an enrollment of 140 men.

Coincidental with this building program, USOM/J established a participant training program to provide college and graduate training in the United States or in Third countries for the teachers who would staff the centers. This program also trained many of the specialists in the Ministry of Education. During the early years, USOM/J assisted with school supplies and classroom equipment, even with budgetary help through subsidation of salaries and food costs.

The results of the program have, on the whole, been very good. The four colleges have now graduated about 1600 teachers, about twenty percent of all teachers in the Jordan Government schools. Of necessity, these trained teachers have all been placed in secondary schools; the elementary schools still rely largely on high school graduates. Since 1952 the numbers of schools and teachers have tripled putting tremendous pressure on the training centers. In response to this pressure the government has increased enrollments by crowding the dormitories and accepting day students, with the result that 338 teachers were graduated in 1962 compared with 156 in 1961. The overcrowded facilities certainly present a problem, so does the type and quality of instruction given which has never reached the true college level. The colleges have not

been accredited, and teachers who looked forward to earning degrees are becoming increasingly aware of this limitation. Despite a sporadic in-service teacher education program, the elementary schools for the most part are still staffed with untrained high school graduates. However, with all these shortcomings the program has enabled Jordan to greatly improve the quality of instruction given, and to meet the challenge of a threefold expansion of services over a ten-year period. True, there is room for development and a need, perhaps, for a sounder approach by the Ministry of Education toward teacher recognition, but for the first time Jordan is now able to provide adequate secondary school educators from within its own school system.

Financial assistance has been used during the ten-year period of 1952-1962 to construct badly needed trade schools in order that boys could learn a trade with which they could earn a living; to provide buildings, materials, and equipment necessary in certain kinds of specialized training for boys and/or girls, such as home economics, agriculture, and arts and crafts. An elementary demonstration school was constructed and equipped in order that the new nation might have one school in which new ideas in elementary education could be tested and tried. Use, function, and the attractiveness of architectural simplicity have been the principles followed in the construction of facilities.

As the teacher training and vocational training programs have gained momentum Jordan has realized an important by-product in the form of an improved foreign exchange income. Jordanian teachers and trained technicians are in lively demand in many less advanced Arab countries. This year, for example, Saudi Arabia alone recruited 1,200 Jordanian teachers for service in Saudi schools. More than 30,000 Jordanians are working in and around Kuwait. More than a thousand more are employed in Libya. The remittances of these and other trained Jordanians employed abroad to their families here in Jordan is estimated to be this year in excess of $20 million, making this the largest single export earning item in Jordan's foreign trade accounts.

US assistance, with funds largely generated from the sale of PL 480, has made possible an effective attack on the need for additional classrooms throughout the country. Focused primarily on rural communities, dozens of modest but adequate schools have been constructed, using local materials and local labor, which have opened the doorway to education for thousands of farm and village children who otherwise would have remained as dustily illiterate as their forefathers.

But the most important contribution to education in Jordan made by the United States has been through people. This is not generally understood by the use of the term "technical assistance", an impersonal term, which, in Jordan, actually means an American teacher, principal, superintendent of schools or college instructor who has come to Jordan from America to work closely on a day-to-day basis with Jordanians in a mutual effort to improve Jordanian education. It is at this level that the American foreign assistance program becomes a person-to-person program and its success measured accordingly. The visits of American advisors to schools and colleges throughout the country are usually characterized by the same kind of warmth, receptivity, and hospitality offered to the country doctor in an American village or town.

Not all education problems have been solved. Cultural and political considerations sometimes outweigh professional judgments. But where successful impacts have been made they have clearly been achieved because of the success of personal relationships through discussion, negotiation, and compromise. Americans in the United States, were they able to travel to foreign lands at will, could travel in Jordan and view with pride many educational landmarks identified with United States financial and technical assistance.

Public Health

The development of Health Services in Jordan literally began from scratch. Following the creation of the Kingdom, a Ministry of Health was formed in 1950; however, there were very few doctors and a complete vacuum of other trained medical disciplines. Only a rudimentary organization was available, and funds and planning were totally inadequate to meet the grave problems confronting the government. There were, in fact, very meagre facilities for providing any form of medical care.

In 1951, at the request of the Government of Jordan, a medical officer from the U.S.P.H.S. was detailed to the country to conduct a survey and recommend the direction the Ministry of Health should take for the establishment of both immediate and long-range programs for Health Services. Because of this timely study, which predated the organization of a US aid mission, the Health Services of Jordan were started on a sound footing.

As a beginning, the Cooperative Health Services, (CHS) was organized with United States assistance, to investigate all requests for projects, to make surveys of needs, and to supervise and administer the implementation of those projects which appeared necessary. The technical staff of this organization was composed mainly of ICA technicians.

CHS's first recommendation was to establish a central government laboratory, the backbone of all health services. This was agreed upon, and in 1954 a three-storey laboratory building was built and completely furnished. The Government of Jordan supplied approximately one-third of the necessary funds to equip one floor for use as the offices of the Ministry of Health. During the construction phase, the Ministry personnel were selected and sent to the U.S.A. and other countries for training. In addition, when the laboratory was opened, the

United States provided an American administrative officer and three American technicians to give a two-year in-service training course to the laboratory technicians and administrative personnel. Since the completion date of this project the Ministry has assumed full operational responsibility for the laboratory, a worthwhile illustration of the importance of having intensively trained personnel ready to operate projects when turned over to the host Government.

A tragically high infant mortality rate demanded priority attention and a Maternity and Child Health Program was launched. The United States agreed to build a Maternity and Child Health Hospital, WHO agreed to furnish personnel for training purposes and UNICEF agreed to furnish equipment and supplies. The hospital was opened in April 1956 and a training school for midwifery was started shortly thereafter. As a result of this midwifery training school, the M.C.H. Hospital is well staffed and 33 MCH centers have been established throughout Jordan. The infant mortality rate has decreased each year in proportion to the expansion of services provided to the communities of Jordan.

Tuberculosis has long been a major health problem in Jordan as in other parts of the Middle East. To combat this disease the Government of Jordan and the Anti-Tuberculosis Society started a T.B. Center in 1948, but due to lack of funds were unable to complete the building. The United States agreed to complete the center, and help with its furnishing and equipment. A United States Hospital Administrator was obtained to design the interior of the building and to draw up plans for operation and expansion. This was another case of cooperation with WHO which provided technicians to train the Jordanians, and with UNICEF which supplied certain specific equipment. The Center was completed in September 1954.

In conjunction with this project, the Government of Jordan

WHO, UNICEF and the United States cooperated in a country-wide
* B.C.G. Program which is being continued to this day by the Ministry of Health with assistance from UNICEF. The T.B. rate is still relatively high but happily is decreasing each year. The Government of Jordan and WHO are planning a more intensive program and with the established facilities and present organization this new program should have an outstanding record in reducing the incidence of T.B.

As a result of preliminary surveys and investigations made by the CHS, together with an awakened awareness of the value of preventive measures, certain specific programs in the field of sanitation appeared necessary. For example, CHS gave support in the form of equipment and local personnel to a WHO Sanitary Engineer who surveyed sewage requirements for the Municipality of Amman. The preliminary report of this survey was used as the basis for the final design of the Municipality's sewerage system and sewage treatment plant. Also, US support was given to the Amman Municipality in the form of garbage trucks for collection and hauling of refuse from the city. The system worked well until the equipment wore out. After this there was an interval when the system collapsed. Fortunately, this problem has now been corrected and the present system is functioning in a quite satisfactory manner.

Other sanitary projects in the country included the design and construction of a Municipal water system for the town of Ma'an; a sewerage treatment plant for the Municipality of Salt and surveys throughout the Kingdom to determine needs for health services and to select those activities which could be handled most successfully. Participant training at the American University in Beirut provided Jordan in 1954 with its first trained personnel in the respective health disciplines.

In 1954 an Environmental Sanitation Division was formed within the CHS and all the specific projects pertaining to

*anti-tuberculosis vaccine.

sanitation were incorporated within this Division. Based on previous surveys, a decision was made to attack the sanitation problems in Jordan through a coordinated program consisting of:

(1) AUB scholarship and US technical training programs to increase the technical skills of the personnel;

(2) On-the-job training courses for the local municipal sanitary inspectors to increase the quality and quantity of their work;

(3) Education and support for Community Development workers;

(4) Health Education lectures in secondary and teachers training schools;

(5) Promotion of the self-help program for the development and protection of rural water supplies;

(6) Promotion of the build-it-yourself privy campaign;

(7) Promotion of a training center for sanitarians when qualified personnel should become available; and

(8) The installation of sanitary facilities within Municipalities, industries, other government agencies, etc. and their routine inspection.

The Environmental Sanitation Division of the Ministry of Health has at present 47 trained sanitarians distributed throughout Jordan who are working within the framework of the above 8 points. These sanitarians have within a period of few years achieved marked success in promoting sanitation through routine inspections of restaurants, food processing plants and other related general sanitation activities.

A Sanitation Training Center has been established in Amman to train candidates from the municipalities and Government in the field of general sanitation. This is an annual course consisting of eight months of academic and practical training, having an average attendance of 10 candidates. The fifth course is now being conducted.

A Sanitary Engineering Section has been established within the Environmental Sanitation Division to work with and assist the Municipalities, industry, and others in the promotion, planning, installation, operations and maintenance of sanitary facilities. This section at present has two sanitary engineers and a further increase in staff is contemplated in order to carry out its responsibilities in the field of Public Health as related to Environmental Sanitation.

Last, but by no means of minor significance, is Jordan's nearly achieved campaign to eradicate malaria. We have provided technicians and some of the wherewithal to finance a Jordanian Malaria Department, which would concentrate on this important job. The low areas of Jordan, including the Jordan Valley, where our East Ghor Canal project is, and the Kerak ghors (valleys) were long known as places where malaria was a very serious problem, and where development was hindered due to the debilitating effect of this disease. The east side of the Jordan River was especially underpopulated, until irrigation projects in the Upper Valley began to attract Bedouins and peasants who came seeking work on the newly irrigated lands. Existing villages often tripled in size and many new small villages appeared.

These early settlers paid a terrible price, for malaria struck and greatly reduced the effectiveness of this working force. This was emphasized when about 100,000 Palestinian refugees came into the Jordan Valley in 1948. These people

came largely from areas where malaria had been controlled and the effect of this mass movement of non-immune people was soon evident; the malaria attack rate among them rose to almost 100%.

The UNRWA authorities realized early that something had to be done and malaria control programs were started. Limited trials with DDT residual spraying protected much of the Valley's population, but after a year or two it was realized that this method alone was not going to be enough; satisfactory control was not being achieved. Investigations revealed that during the hot months (April through October), the inhabitants of the Valley, house and tent dwellers alike, sleep in the open air. This outdoor sleeping, coupled with the habits of the local mosquitoes which also feed and rest out-of-doors, made it necessary to use larviciding as a malaria control measure (a relatively expensive operation compared to DDT residual spraying).

Many areas in the Jordan Valley had extensive swamps which could not be controlled by available hand spraying methods, and the mosquito hordes breeding in these areas tended to reduce the effectiveness of larviciding elsewhere. So an extensive drainage program had to be started. As the swamps were dried up and as malaria gradually relaxed its hold on the Valley, enterprising farmers started to reclaim these fertile areas. The dense growth of tamarack and oleander was gradually removed and acre after acre of farm land was placed under cultivation.

By 1958 a decision had been made to eradicate malaria from the whole country to prevent the high costs of perpetual control. If this control should happen to be suspended or relaxed, the rate of land development could be slowed or stopped as devastating epidemics would again return to an area where people had been living for at least ten years without exposure to malaria. In 1959 the eradication project was

expanded until soon the whole malarious area of the country was under attack. Swamp drainage again had to be resorted to in the Kerak ghor area, and many of these former swamps are crop-producing areas today.

Some idea of the accomplishment in this area is indicated by the fact that in 1954 nearly 15,000 cases of malaria were reported while in 1962 it is estimated that the number will be around 50. It is expected that by 1967 malaria will have disappeared entirely from Jordan and one of the greatest impediments to agricultural development will have been removed. During the early days, much of the lower Jordan Valley was barren waste; now almost any trip to the Valley will reveal new irrigation pumps being installed and land being prepared for scientific farming where formerly only small patches of wheat could be seen among the larger areas of barren waste. The control of malaria has contributed to this development; its eradication will remove one of the last barriers to complete land utilization wherever water can be made available.

Industry

Jordan is a land where possibilities for the development of industry are restricted but important. Without some industrial development there can be only a limited opportunity for economic viability.

The potential for development in the large industry field is presently restricted to the exploitation of phosphate and potash, both of which, however, appear to offer good possibilities. USAID has already assisted in both these fields. A DLF loan was arranged for phosphate development, a modern plant was constructed, and Jordan has now entered the world phosphate market to the tune of nearly 400,000 tons annually. USAID/J has also assisted by the creation of a pilot plant on the Dead Sea to study the economic feasibility of producing potash from the Dead Sea itself. Prospects look sufficiently attractive at this time to have interested even the business-minded Government of Kuwait in investment in the scheme. An output of at least 250,000 tons is planned beginning in 1965 or 1966.

A US DLF loan to Jordan's electricity development has helped output to grow from about 26 million KWH in 1959 to 35 million KWH by the end of 1961. In addition, during the last two years, our industrial advisor to the Jordan Government has assisted many economical import substitute enterprises through consultation and recommendations. With the help of the US-financed Industrial Development Fund, an excellent automobile battery factory started producing last year and now provides most of Jordan's needs. This Fund also financed an electric tubing factory, a radio battery plant, a textile factory which, besides a civilian output, supplies the Jordan Army with uniforms, jackets, caps, socks, and other essential clothing gear, which otherwise would have to be imported. In order to promote greater use of Jordan's own resources, USAID has financed or is financing feasibility studies for enterprises in cardboard, fertilizer, ceramics, truck and bus assembly,

building hardware, electrical fittings, pipes, glucose, and so on. One of the earlier studies in this program, dealing with the prospects for a cardboard factory, looked particularly promising and is already being organized for production.

In addition to all these, a petroleum refinery financed with non-US funds started operations in November 1960 and in 1961 produced about 180,000 tons of asphalt, gasoline, kerosene, and other fuels.

Nearly all domestic requirements for fuel are now satisfied, and the management of the refinery aims at doubling output by 1965. A vegetable oil refinery started production at Nablus in 1960; a tannery went into operation here in 1961; a cement factory, shooting for a production of 330,000 tons by next year, already satisfies 95 per cent of Jordan's needs; a number of cigarette companies, a marble plant, using the unique material from Jordan's own quarries, carries on a good domestic and regional trade. There are factories of different shapes and sizes for producing soap, beverages - alcoholic and otherwise, - small iron products, shoes, and so on. The small shop variety of production, in fact, is really the most prevalent of them all, and we have helped many of these get started through grants to an Industrial Loan Fund.

Much remains to be done. The US contribution in this area has not been enormous in terms of money. Yet, our loans and our technical advice have been part of the drive in promoting industrial activity in many fields, and the people and the Government of Jordan are not unmindful of our contribution.

Any further boost we might be able to give to the phosphate and potash industries could generate large gains in foreign exchange earnings. The future may turn up some significant finds in other minerals too, as for example the copper deposits on which a German geological survey team has recently reported optimistically. USAID/J is keeping an open mind on where to

prod or help next so that maximum impact can be produced on reducing those twin deficits (budget and external) which thwart the economic viability of this Kingdom.

Tourism

Jordan, whose Holy Places are venerated by followers of three major religions, and with well preserved antiquity sites such as world-renowned Petra, is an "open air museum" without parallel. It offers a tourist potential which until recently has been largely untapped, the currency earning possibilities of which have been lost neither on representatives of the Government of Jordan nor on USAID personnel. Both are convinced that tourism can be one of Jordan's leading industries; and while little progress was possible during the turmoil of the fifties, the last three years have seen the beginning of a systematic effort to realize this potential.

US assistance has been directed toward the solution of three main problems: first, increasing the number of hotels and rest houses to make Jordan competitive with other countries in an area in which tourism has already been established; second, by advice and help to the Jordan Tourism Authority to improve the quality of hotels and services rendered to tourists; and third, to augment the government's limited resources to restore and develop a wide-range of Jordan's antiquities so that the "package" offered to the prospective tourist can be larger than a visit only to the Holy Places of the West Bank.

Signs of progress are already apparent in the increased number of tourists coming to Jordan, and also in their increased length of stay. Notable also is a trend from what may be termed the "religious tourist" to the cosmopolitan, world traveler type of tourist. The seasonality of tourist travel has in the past been a major problem. There were, and will continue to be, the peaks of Christmas and Easter tourism, but there are encouraging indications that more tourists are coming during the off peak periods.

In helping to improve the quality and quantity of tourist

facilities, USAID has assisted the Government of Jordan to obtain sound loans for the financing of new, first class hotels. It has also through the AID-financed Industrial Loan Fund provided small, short-term loans for the improvement of existing hotels. With local currency generated from the sale of US surplus agricultural commodities it has made possible the building of Tourist Authority Rest Houses at some of the antiquities sites where no such facilities previously existed.

In an effort to improve the quality of services as provided to tourists, USAID is providing advice to the Jordan Tourism Authority regarding the establishment of hotel classifications, and has cooperated in making known to Jordanian hotel proprietors the kinds of services which the sophisticated traveler expects. Several Jordanians already have been sent to the United States and other countries to study hotel management. In this connection, attention has been paid not solely to the potential American tourist but also to travelers primarily from the continent of Europe. It is recognized that the former can spend only a limited time in Jordan due to travel distance, but the European can and will stay longer.

Not only has attention been paid to increasing the length of stay of the average tourist but also to attracting that type of tourist who has lots of money to spend and providing him with the type of service which will make him willing to spend it. Income resulting from tourism has doubled in the past three years and is expected to bring in over $14 million in foreign exchange this year, making this industry a close second as an exchange earner.

Using work relief money available from the sale of PL 480 commodities, USAID has made it possible for Jordan to unearth and refurbish a number of its priceless antiquities. Two sites on which extensive work has been done are Petra, the "rose red city, half as old as time" a mountain stronghold of

the fabled Nabateans; and Jerash, one of the largest and best preserved of the Roman cities in the Middle East. Jerash can presently hold its own with Carthage or Baalbeck, while the lost city of Petra is unique. As accommodations at these sites improve and as transportation facilities to them from Jordan's two major air fields at Amman and Jerusalem are developed, there is no doubt that they will become prime tourist attractions. The same is true of other historical places in Jordan; according to Deuteronomy (3-11) King Og's nine-cubit iron bed once existed in Amman. It has yet to be found, or reconstructed by the Jordan School of Welding, but all things are possible in a land where the Dead Sea Scrolls have been making the front page of newspapers throughout Christendom.

Public Administration

When the United States assistance program was initiated in Jordan in the early '50s, the primary emphasis was on the creation of physical facilities, as we have seen, or on direct services to the people. These activities were carried out under the joint administration of Jordanian and American personnel, with the American in most instances having final executive authority. Later on, in 1957, administrative responsibilities were transferred to the newly established Jordan Development Board and to the Ministries involved. American technicians relinquished their executive authority and instead became advisors.

With the advent of the new arrangement, it soon became evident that weaknesses in the administrative practices of the Government were impeding project performance. At this time consideration was given to the need for a public administration program in Jordan. It was not, however, until the summer of 1959 that a Public Administration Advisor was assigned to the Mission. During his tour he attempted to identify specific weaknesses in the administration of the Government. Among the more serious of these were (1) inadequate budget and accounting systems and procedures, (2) inadequate procedures for the collection of revenues, (3) a lack of trained personnel experienced in effective techniques of administration, (4) a lack of basic statistical information on Jordan, and (5) a Civil Service system which provided only limited security to civil servants and which provided little opportunity for the unusually capable to advance in the hierarchy.

An action program in public administration proved difficult to develop in the face of a lack of interest in Jordan. An attack on the problem of inadequately trained personnel, however, was begun with a program of participant training and an undergraduate program in public administration at a local private educational institution.

Until early in 1962 there was little tangible evidence of progress in public administration. Training programs had been initiated but not completed; advisors had not yet been recruited for the important activities of finance management, statistics and tax administration. On the other hand, a national population census had been taken in late 1961 with substantial financial support from the US Mission. In addition, a UN Public Administration Advisor had finally been made available whose efforts were directed toward the improvement of the Civil Service system.

Then, in January 1962, the new government of Wasfi at-Tal was installed in Jordan, a government dedicated to the rapid development of Jordan's economy and to the improvement of administrative policies, practices and procedures necessary to make this development possible. Shortly after its installation, the new government asked the USAID Mission to provide advisory assistance in accounting and auditing, budgeting, tax administration, and statistics. Advisors in these fields have now been on board for approximately four months each. During this period they have been generally successful in obtaining the confidence of the Jordanian officials with whom they work, and progress toward the improvement of administration is now becoming evident. Although the advisors have been here only for a limited period, prospects for progress look good. There has been established, for the first time in Jordan, a semi-independent budget department in the Ministry of Finance, with a relatively competent staff, charged with preparing comprehensive annual budgets based on program and performance. There is also under consideration a proposed new income tax law which establishes more equitable rates and which provides for increased revenues through better enforcement and collection practices. There have been changes in the auditing procedures of the Government of Jordan to allow officials in the Ministries greater independence of action on routine financial matters without lessening control. Work is presently being carried out

on the establishment of more adequate accounting procedures to support the new budget system and to provide management with more timely records on financial status. Finally, the analysis of data collected on the national population census is progressing more rapidly than was expected six months ago and already providing useful preliminary information.

The execution of any program for economic development depends to a great extent on the effectiveness of financial management, not only of the program but of government operations in all their aspects. While most countries recognize the danger of misappropriation of funds, they frequently fail to recognize that as much or greater amounts can be wasted through delays or inaction occasioned by cumbersome, inefficient administration. If development plans are not subjected to the scrutiny of an objective budget review, which considers not only the development needs of the nation but also the needs of normal operations of government, imbalance may result. If financial procedures relating to the procurement of supplies and materials are so rigid and involved as to cause inordinate delays, the program falters and costs rise proportionately. If tax authorities fail to collect the revenues due, the financial capacity of the government to develop is inhibited. If planning is not based on valid statistical information, plans may well be unrealistic. Fortunately, the Tal government fully recognizes the need for improvement. As this report was being prepared, the Director of USAID/J received a new direct request from the Prime Minister for assistance in selecting and employing the services of a reputable management-consultant firm to study Jordan's present financial procedures and to propose improvements.

The focus of the public administration program in Jordan is on the solution of the problems described above, and we believe it can bring notable practical gains to Jordan's overall development effort.

Administrative reforms in such complex and sensitive areas as fiscal management and tax administration come slowly, since they involve not only the adoption of new procedures and the training of personnel, but more importantly they require changes in the attitude and philosophy of the individuals responsible for these activities. Optimistically, the key administrative reforms now under way can be established and ingrained in the Government of Jordan within two to three years. If this expectation is fulfilled there will no longer be a need for advisory services in these areas. New areas which then will be explored are: supply management/assistance to provide the Government of Jordan with more effective and less cumbersome procedures for the control of property; and organization and methods analysis to assist the government in making more effective its organizational structure and general methods of administration. Attention will also be given to the possibilities of establishing effective organizations for the training of Jordan Government personnel in the various aspects of government administration. These plans are tentative at this time, and before they are initiated the Government of Jordan must be convinced of the need and must provide a locus from which advisors in these areas can function.

As this is written it is too early to assess accomplishments. But the outlook is hopeful and a start has been made toward better financial administration, tax management and statistics. In the long run, we hope to see these efforts pay off both in substantially increased revenues and in savings derived from more efficient operations. These gains will in turn make their contribution to the drive on Jordan's burdensome budget deficit.