

REPORT
on the
Site Selection
for the
Permanent Administrative Center
of the
HELMAND VALLEY AUTHORITY

U. S. Technical Cooperation Service
to Afghanistan

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HELMAND VALLEY AUTHORITY

Report on Site Selection for the Administrative Center

Introduction

At the request of His Excellency, Abdulla Khan, President of the Helmand Valley Authority, studies have been made to ascertain the most appropriate location at which to develop the facilities required for the Administrative Center of the said Authority. The results of these investigations are presented herewith.

Inquiry was also made into the feasibility of constructing facilities to be temporarily occupied by the HVA and which could later be used to fulfill some permanent needs within the present project areas. It was found to be impractical to design and locate structures and facilities that could be economically usable for such diverse purposes. It became apparent that all facilities for HVA use, whether in the project areas or at the Administrative Center, should be built for permanent occupancy on the sites selected according to their functional place in the operational pattern.

General Background

The Helmand Valley Authority, established by governmental action in the fall of 1331 A.H. (1952 A.D.) is charged with the responsibility of directing the economic development of the Helmand watershed. The watershed contains, along with the Helmand River, the various major tributaries including the Arghandab, Tarnak and Dori rivers. It extends irregularly over three degrees of latitude and four and a half degrees of longitude. The geographic center is near Girishk.

The general functions of the Authority, as set forth officially, are as follows:

- a. Conservation and utilization of the national domain located in the Helmand Valley;
- b. Protection of the national interests in the Valley;
- c. Protection and development of land and the economic use of water resources;
- d. Control of the flow of the Helmand River and its tributaries;
- e. Consolidation of lands and the settlement of migratory peoples;
- f. Generation of electrical energy in the Helmand area.

Prior to the establishment of the Authority, the National government, utilizing the services of MKA, had been carrying on a long-term improvement program in the watershed. This plan included two large dams and several

canals. Kajakai Dam on the upper Helmand is nearly completed. The Boghra Canal, starting above Girishk city, now brings water to two major plains areas west of the Helmand River, known as Nad-i-ali and East Marja. An experimental farm has been developed at Fort Nad-i-ali itself. The Shamalan canal, taking off from the Boghra, follows south along the west side of the Helmand and brings improved water supply to the river valley area for some 65 kilometers. To the east, a large dam has been completed on the Arghandab north of Qandahar, which will permit the enlargement of land areas under cultivation in the lower valley. Another canal, the Seraj, takes water from the Helmand some 35 kilometers north of Girishk, and irrigates the lands on the eastern side of that river for a distance of over 70 kilometers. This was a government project entirely.

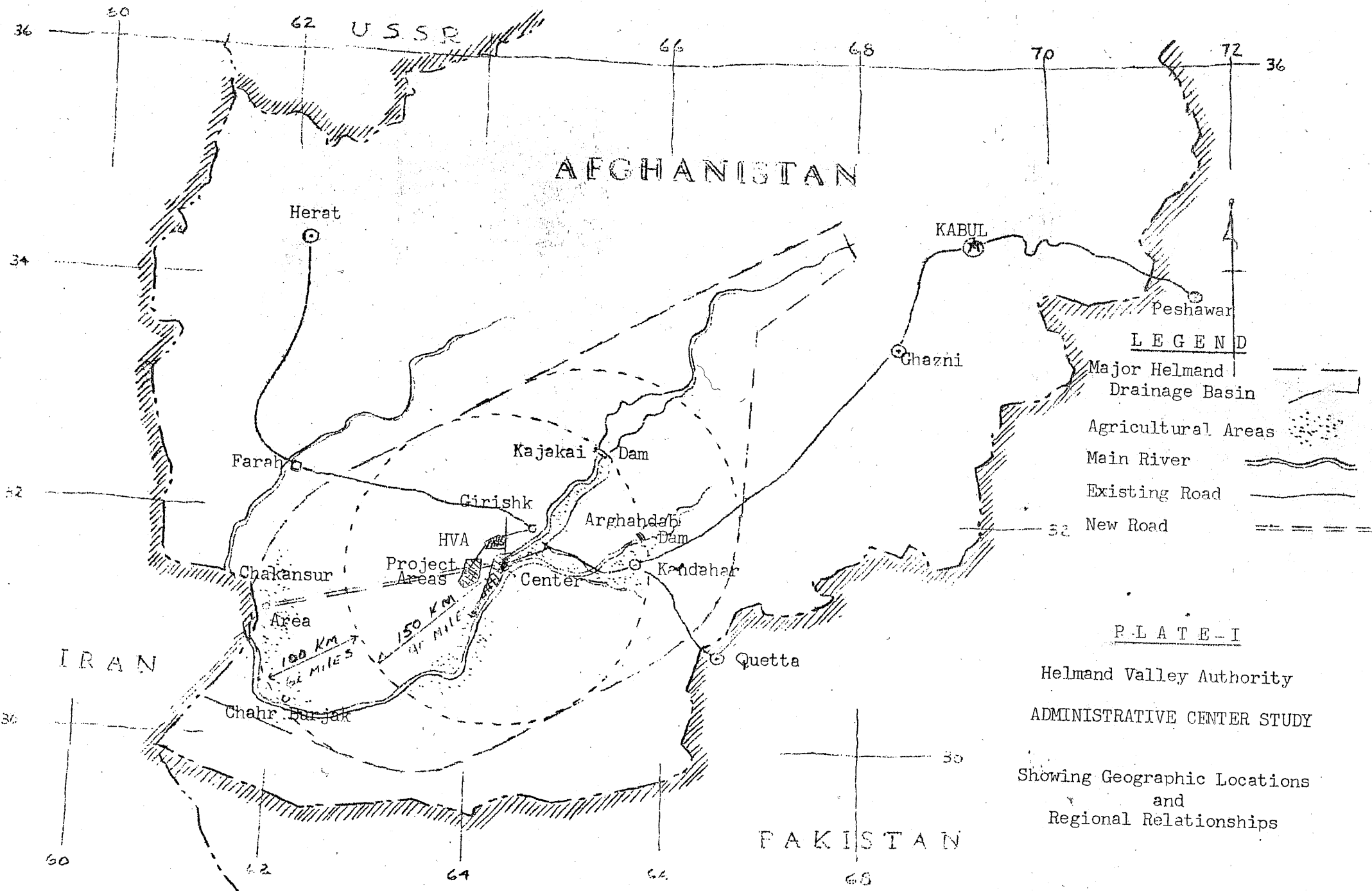
These aforesaid facilities and projects are now under the control and direction of the Helmand Valley Authority. These unrelated agencies previously in charge of various portions of the Valley improvement activities have been transferred to and incorporated in the Authority. In short, a central autonomous organization now exists to most efficiently plan, execute, and administer the economic development of one of Afghanistan's most important river systems. Further, this Authority has begun as an operating agency, with physical assets and programs already in existence, and it can be expected to grow and expand in proportion to the increasing tempo of the Valley development work.

The Authority, however, is still physically dispersed, with offices in Qandahar, Girishk and Fort Nad-i-ali. As a result, organizational work and staff development are seriously handicapped. These long lines of communication and control adversely affect operating efficiency and impose a heavy time-consuming travel schedule upon key personnel. Field offices will form a part of the work pattern but it is imperative that a center be established to provide the facilities for Authority Headquarters and the over-all administration of the Helmand Valley development programs. The purpose of this report is to recommend the most appropriate site location for such a center. The final recommendation is based on the following studies.

SITE SELECTION CONSIDERATIONS

I. Geographic Location

The location of the HVA Center should logically be related to the geographic center of its administrative jurisdiction, which roughly extends from Panjab on the north to Chahr Burjak on the south and from east of Qandahar



LEGEND

- Major Helmand Drainage Basin
- Agricultural Areas
- Main River
- Existing Road
- New Road

PLATE-I

Helmand Valley Authority
ADMINISTRATIVE CENTER STUDY

Showing Geographic Locations
and
Regional Relationships

to Miarrah. This indicates a location somewhere south of Girishk. Within this area, a site should be chosen that is reasonably close and has easy access to the three major Helmand River development projects of Nad-i-ali, East Marja and the Shamalan. A river site, naturally would be most appropriate. (See Plate I.)

Since this location will also become a marketing center, it is necessary that the site be on either existing or possible main lines of communication within the region, and beyond. This is particularly important since the shortest route for bringing produce to market, whether for internal consumption or for export, will lower the cost to the consumer and save foreign exchange outlay for the country. Studies have shown that to operate a lorry, it costs at least ten cents in foreign exchange for gasoline, oils, tires, parts and vehicle for each kilometer of travel under normal conditions.

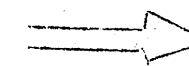
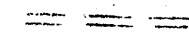
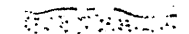

In this respect, a study was made of the traffic circulation within the Nad-i-ali, East Marja and Shamalan region and the logical farm-to-market network. Considered with this group was also the produce traffic that will originate in the Chakansur region when connected by road to the East Marja and that coming from additional Helmand Valley developments south of the Shamalan. (See Plate II.) It was found that the traffic lines were shortest when crossing the river north of its confluence with the Arghandab and proceeding directly east via Yakhchal. The Qalai Bust-Yakhchal road is developed to within 7 kilometers of Yakhchal, and will there connect with the direct route to Qandahar as well as the road north to Kajakai Dam. It should be noted that Qandahar is not necessarily the terminal point, but traffic going north to Kabul or east to Quetta must pass through this city.

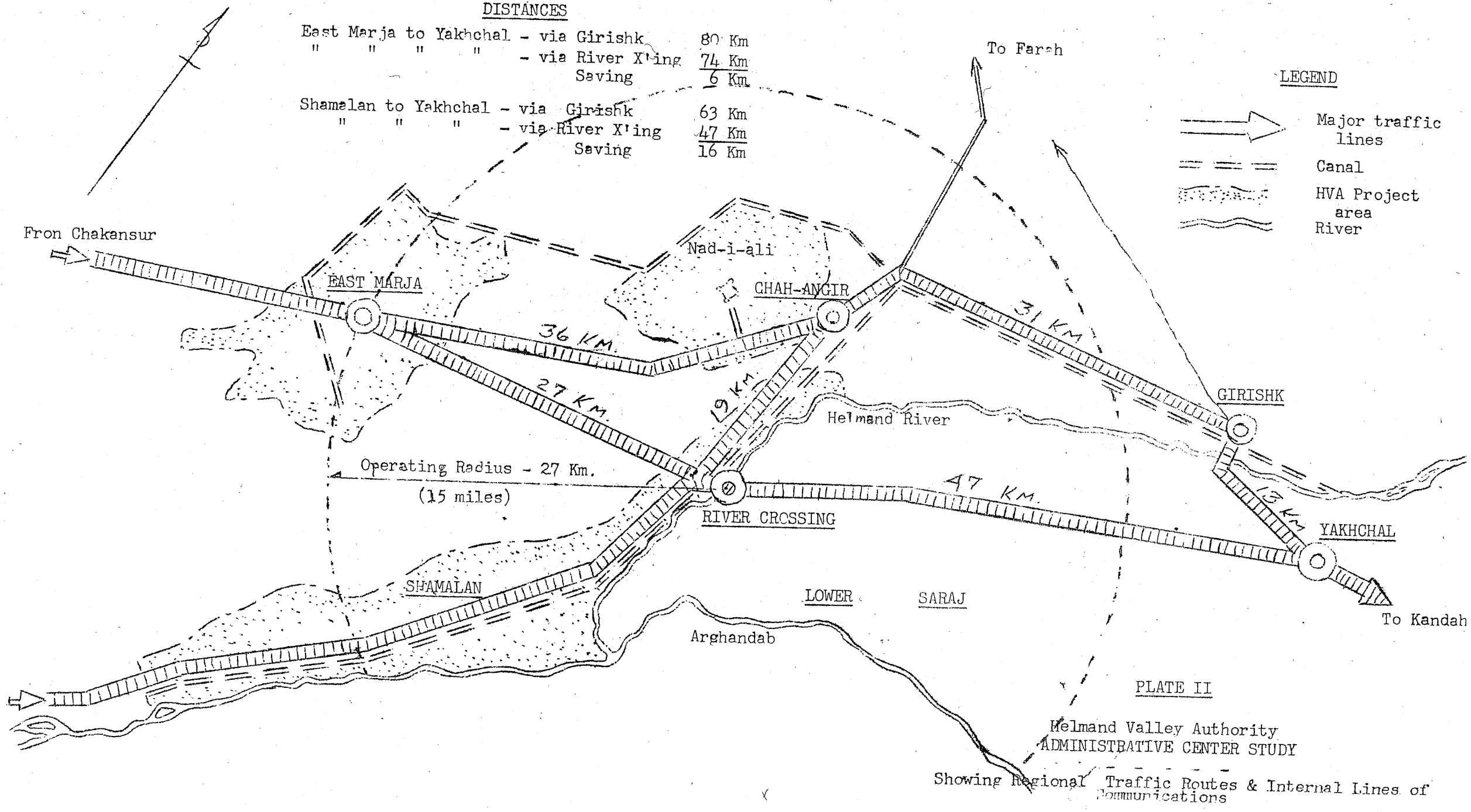
Traffic taking this route to Qandahar will save 6 kilometers between the East Marja and Yakhchal and some 16 kilometers between the Shamalan area and the same town. The cost savings in foreign exchange per year is impressive. If a lorry made only one round trip per week from the Shamalan region, the operating costs would be reduced by some \$165 each year by using the shorter route. The missing connection in this regional farm-to-market road is a river crossing, which could be provided by either a ford, ferry or bridge. The least expensive crossing should be initially installed and could be replaced with a more appropriate structure when required by the future traffic demands. This artery when completed, will have additional regional economic value in that it will tie the Lower Saraj area into the regional pattern and will provide it with an outlet to markets, thereby stimulating increased agricultural productivity.

DISTANCES

East Marja to Yakhchal	- via Girishk	80 Km
" " "	- via River X'ing	74 Km
	Saving	6 Km
Shamalan to Yakhchal	- via Girishk	63 Km
" " "	- via River X'ing	47 Km
	Saving	16 Km

LEGEND

-  Major traffic lines
-  Canal
-  HVA Project area
-  River



Consideration is also being given to the possible relocation of the Qalai Bust road closer to the agricultural areas along the Arghandab and having this road connect with the Qandahar highway at Khusk-i-nakhtud. This would open up more agricultural lands and would reduce the Shamalan traffic haul by at least another 10 kilometers.

Naturally, some traffic will not be headed directly to Qandahar, but to an initial marketing or processing terminus. It is logical, therefore, to shorten the haul of produce and raw materials from the farms by having the terminus most centrally located in relation to the production areas. Not only will the initial transport costs be reduced but the secondary transportation of processed goods will be more profitable since the payload value per kilogram carried will be greater.

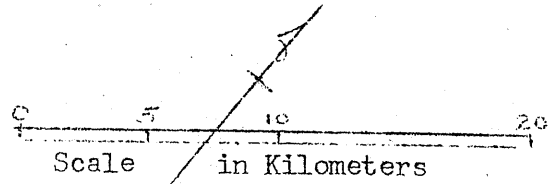
Consideration must also be given to the future population distribution, as well as that now existing. It is proposed to settle 600 families in the Nad-i-Ali development and 2,000 families on the East Marja lands, according to present estimates of the soil productivity. The number of new families that will be attracted to the Shamalan, present population estimated at 30,000, is dependent upon land ownership factors and estimates vary between 1,000 and 3,000. Some private marginal settlement is to be expected. No estimate is available at present on the family settlement possible in the Lower Saraj area if the Saraj Canal is enlarged. On the basis of a minimum of 3,600 new families to be settled in the first three areas only, an early increase of at least 20,000 population can be expected in this region. (See Plate III.)

If the Saraj Canal is enlarged and anticipated industries such as cotton ginning, leather tanning and the like are established locally on the Helmand River to process these agricultural products, a large population increase in this general area will result. With Girishk City some 60 to 70 kilometers from major project areas, an urban center closer to the balance of population is definitely required and is so recommended.

II. Area Requirements

With the exception of the limited space at the Nad-i-Ali experimental station, the Authority has no office facilities of its own, nor is housing available for its personnel and their families. Both are essential for efficient administration and operations.

Original estimates called for approximately 40 offices to be provided for HVA. While probably temporarily satisfactory in the present formative stage of the organization, plans now under consideration indicate the expansion that



LEGEND

- Canal
- HVA Project Area
- Highway
- 1,000 Population Symbol
- Possible HVA Site
- River

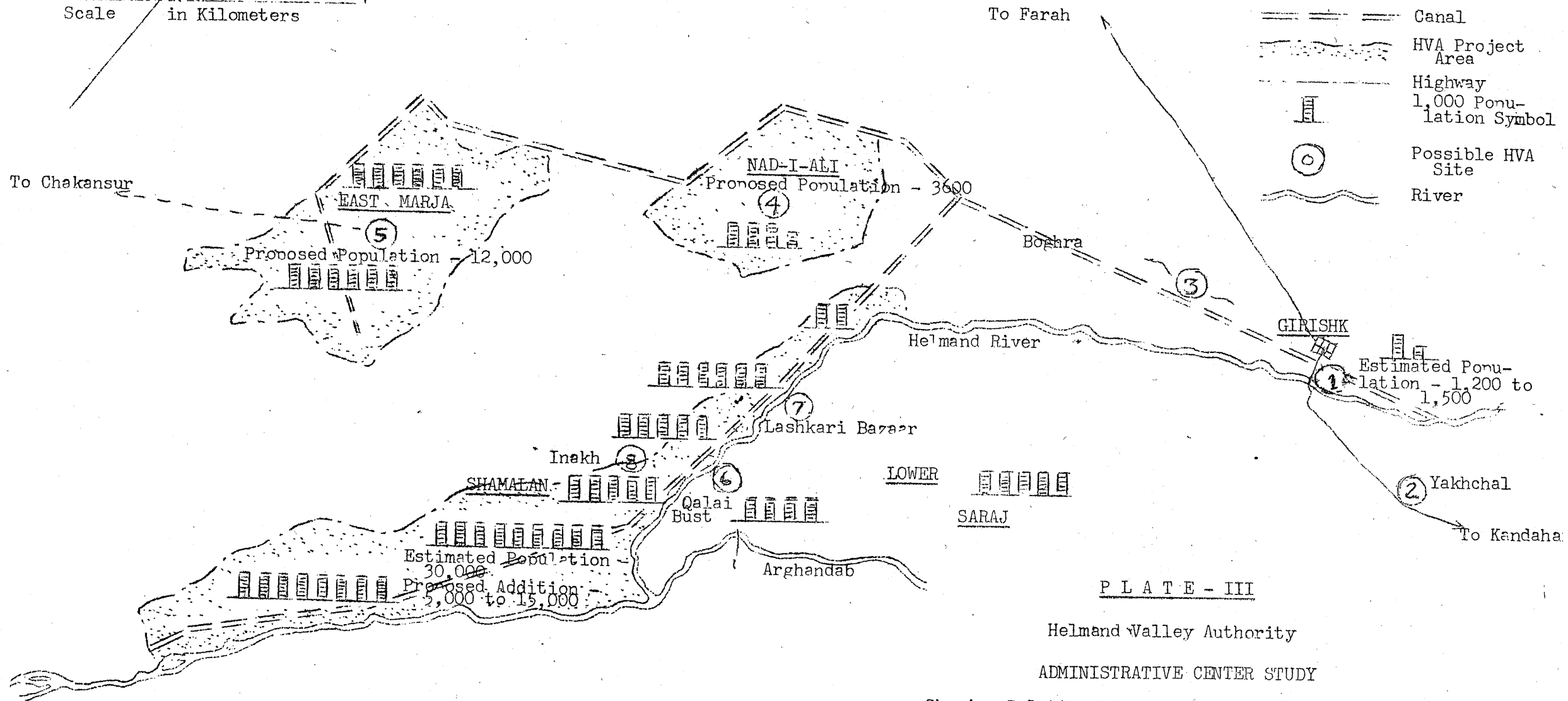


PLATE - III

Helmand Valley Authority

ADMINISTRATIVE CENTER STUDY

Showing Relationships between Project Areas, Population Distribution and Various HVA Center Sites

can be expected in the immediate future. The present tentative development program mentions over 85 activities to be carried on under the general headings of administrative services, agricultural development, resettlement, area economic development and engineering, which latter includes water control, power development and maintenance, as well as general building and construction. All of these activities will require at least one office each, and more in many cases. Although all these activities will not necessarily be located at the HVA Center, space must be provided for liaison personnel.

Initial office construction may be limited to the funds available for this purpose, but it is evident that advance planning must provide for the total office facilities that will be required under present proposals. In addition, land area must be reserved for those future expansions which will naturally follow as the Valley area becomes more intensively developed.

Personnel living quarters must also be provided in the HVA Administrative Center, regardless of the final location. There is no surplus residential housing available in the Girishk area, and the present living conditions of HVA employees are unfortunate. The majority have their families lodged elsewhere. It will be necessary for HVA to assume the responsibility for housing construction in order to attract and keep its personnel. The housing can be rented to each employee, made a part of his remuneration, or sold on a rent-purchase agreement according to whatever policy HVA may elect.

The HVA Administrative Headquarters will be the center of permanent basic employment, comparable to that of a large industry. It has been demonstrated that each such center attracts additional population over and above the basic employees and their families. These people provide the services and engage in secondary employments generated by the basic group. In general, there are two persons engaged in this latter group for each worker in basic employment. Essentially, the housing and work facilities of this secondary group will be no responsibility of HVA, since they tend to provide their own. They do require community facilities and contribute to the balanced development of an urban center. Therefore, in its own interests, HVA should take measures to ensure that adequate land area is available for this group and that their improvements fit into a controlled development plan around the HVA Center itself.

The HVA was boldly conceived and premised on a fresh, functional approach to the integrated exploitation of the nation's natural resources. This same vision must be applied to all things with which HVA is connected, and its

urban development as well as to administrative functions. The HVA Center should be as much of a demonstration project as HVA irrigation systems and model farms.

To recapitulate, the HVA Center will require sufficient area to provide adequate sites for the following:

- a. HVA office buildings, immediate and future
- b. HVA personnel housing, immediate and future
- c. Secondary employment building, immediate and future
- d. Non-HVA population housing, immediate and future
- e. General community facilities, immediate and future
- f. Parks and recreation facilities, immediate and future

Estimating initial HVA personnel at approximately 150 persons, an estimated secondary work force of 300 (plus or minus) can be expected to materialize shortly thereafter. This means a total work force of 400 to 600 in and about the Center by the end of the first years of operation. At a conservative figure of 2 family members for each worker, the population of the Center area would add up to more than 1,200 persons. In an expanding economy, employment centers attract population at an accelerated rate. With the center also becoming the focus for regional marketing, light industries, educational and extension services, etc., it will not be unrealistic to expect it to have a population of 6,000 to 8,000 persons at the end of ten years. Greater growth will follow in the future.

For purposes of initial planning requirements, it is proposed that an area containing 1,000 jeribs be considered as minimum for the new HVA Center. Approximately 65% of this will be required for sites for HVA administrative facilities, public buildings and installations, commercial buildings, parks, public squares and streets. The remaining 35% or 350 jeribs will provide 1/3 to 1/2 jerib lots for up to 800 families. This percentage of land use will be reversed in later extensions of the Center, which will be predominantly residential in character.

In acquiring a tract of this size, it is to be expected that a certain percentage thereof will be farm land of varying quality or land that could be cultivated. Therefore, a definite policy should be adopted by the Authority that any agricultural land lying within the final site boundaries should continue to be made available for cultivation and food production until such time as the physical development of the Center requires the land for other uses.

In addition to the above 1,000 jeribs, at least 1,500 jeribs of adjoining land should be available and under HVA control for future expansion on a long-