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SINAI DEVELOPMENT STUDY, PHASE I

FINAL REPORT

VOLUME II

MANAGING SINAI'S DEVELOPMENT

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FINAL REPORT
LIST OF VOLUMES

- Volume I A Strategy for the Settlement of Sinai
- Volume II Managing Sinai's Development**
- Volume III An Economic Development and Investment Plan, 1983 to 2000
- Volume IV The Land and the Environment of Sinai
- Volume V Water Supplies and Costs
- Volume VI Settlement and Social Development
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VOLUME II
MANAGING SINAI'S DEVELOPMENT

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MANAGING SINAI'S DEVELOPMENT

1.0 INTRODUCTION

The purpose of this volume is to identify the major work to be done in executing the Recommended Strategy for Development of Sinai (Figure 1.1) and to discuss the administrative arrangements necessary to accomplish this challenging task. Section 2 describes briefly the Sinai envisaged for the year 2000 and touches lightly on the major projects and programs to be completed if this new pattern of settlement is to be achieved. A more complete list of major programs and recommended next steps can be found in Appendix B of Volume I, A Strategy for the Settlement of Sinai. Section 3 reports the present situation and some of the problems already encountered as the existing administrative system endeavors to accomplish tasks already assigned to it in Sinai. Section 4 suggests the major functions to be provided as the management system is strengthened to accomplish what is required in the next two decades and to maintain the pace of development thereafter. Section 5 deals with a number of special problems, such as water management and environmental conservation. The volume concludes with Section 6, which reviews how major elements in the proposed management system interact to foster achievement of year 2000 goals.

This material has been prepared in response to those sections of the Scope of Work which require the Consultant to "review a number of policy issues; for example appropriate decentralization of government authority and services to meet the needs of remote, scattered communities; institutional requirements; ways to induce adequate growth in the essential services sector; and techniques for controlling land and water use." The Consultant has undertaken to "give attention to administrative or policy actions and institutional requirements (including training) which will be necessary for successful implementation" and "to recommend a strategy which offers the best balance between early pragmatism and adherence to a planning framework which will encourage the viable long-term economic, social and environmental development of Sinai."

Although preparation of this volume was assisted greatly by officers of the ministries, governorates, and authorities most concerned with development in Sinai, the principal source of ideas and recommendations presented in the following pages was discussion among members of the SDS-I team, reflecting their concern to find practical ways to ensure implementation and coordination of all major elements in the Recommended Strategy.

The SDS-I work on the subject matter of this Volume covered three years. It was concentrated in the latter part of 1981 and the early months of 1983. During this time the organization and staffing of the five governorates responsible for Sinai and the Sinai Development Authority have been modified in the direction of the recommendations herein. This report is submitted to government officers who are well aware of the problems facing them and are busy molding their organizations and staffs to build for the future. The Government of Egypt has adopted several interrelated objectives for development in Sinai. They have been summarized as follows:

- National integration: To integrate Sinai fully into the economic, cultural, and political life of Egypt while creating a "life-style" appropriate to the special circumstances of the Peninsula and reducing the current disparity in social services relative to Nilotic Egypt.

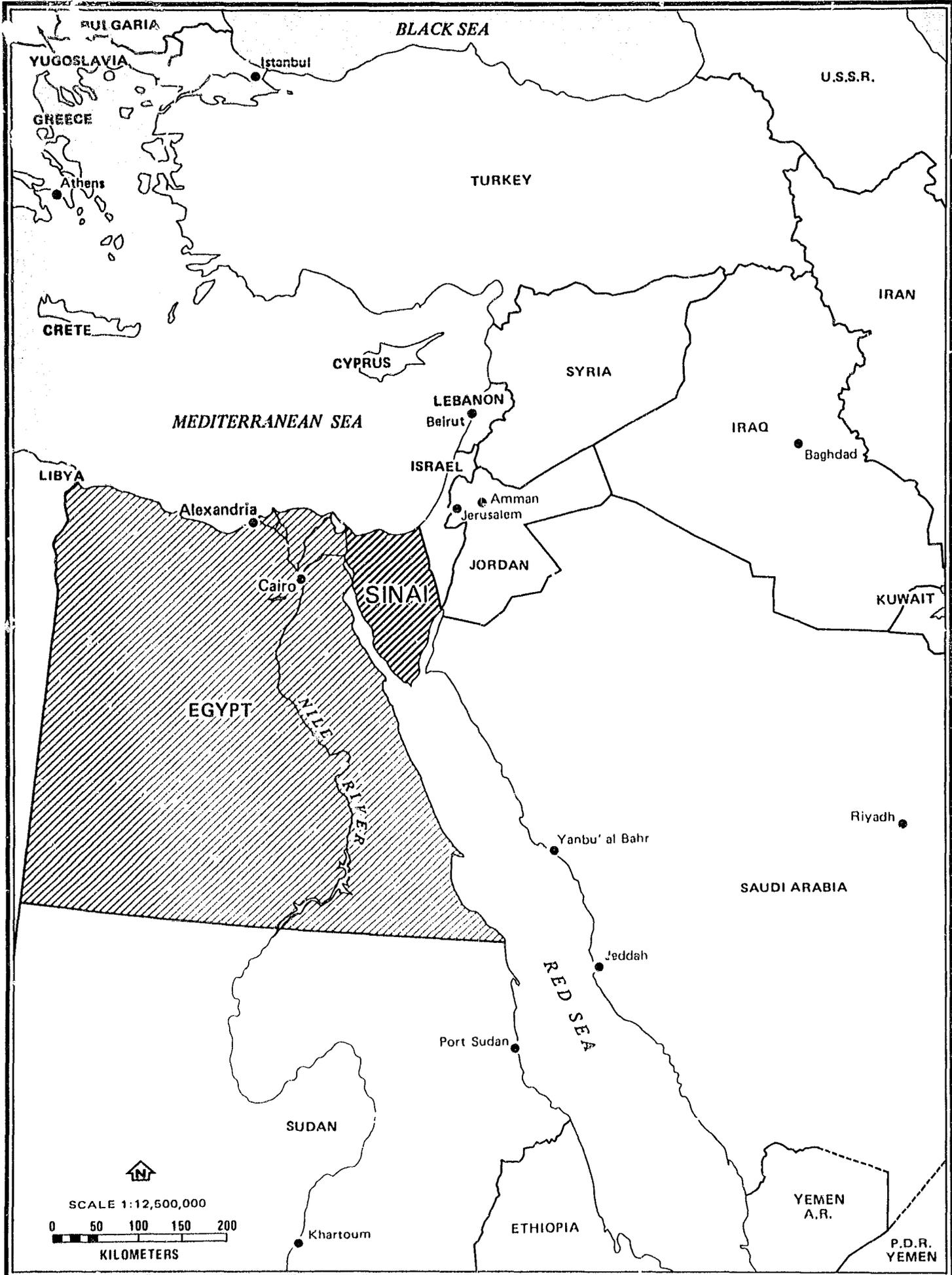


FIGURE 1.1
LOCATION MAP

- Population absorption: To attract, through jobs and amenities, enough people to reduce pressures of overpopulation near the Nile, and to reach a total population in Sinai of about one million by the year 2000.
- Resource development: To develop natural resources, including petroleum and other minerals, land suitable for agriculture or industrial sites, surface and underground water, trade routes, and beaches and other tourist attractions, in ways that serve the national economy as well as the growing population in Sinai itself.
- Develop/attract manpower: To attract and/or train workers who have the requisite skills in agriculture, mining, industry, construction, tourism, and other sectors to perform in ways that result in high productivity for the enterprises and communities where they work.
- Economic viability: To develop by the year 2000 a viable, self-sustaining economy that produces goods and services that meet national and export needs; encourages cost-recovery; and follows a least-cost path toward desired goals, while keeping financial risks associated with public and private investment within manageable limits.
- Dispersed settlement system: To foster the enhancement and creation of permanent, interdependent settlements--both large towns and small villages--that are widely dispersed throughout the Sinai peninsula, with ample amenities to attract and retain a rapidly growing population.
- Improve communications and transport: To build and maintain highways, ports, a telecommunications network, and other infrastructure components that serve essential economic as well as national security requirements and provide convenient links for Egypt through Sinai to the Middle East, and for Sinai to Egypt and to export markets.
- Enhance the environment: To enhance the environment of Sinai by introducing Nile water, small sea ports, and perennial vegetation, and to conserve the unique environment and resources of the Sinai, including scarce water resources, outstanding coral reefs, historical and religious monuments, and grazing lands.

The Government's objectives, goals and purposes for developing Sinai are discussed further in Volume I of this Report, entitled "A Strategy for the Settlement of Sinai" (Chapter 2). Some of these goals reinforce each other, while others are more or less in conflict. The job of management is to see that conflicts are reconciled promptly and that opportunities for reinforcement are exploited fully. The best management system will be the one which achieves a balance among several objectives in accordance with the priorities established by Government from time to time.

2.0 THE TASK TO BE MANAGED

Sinai in the year 2000 is envisaged as a place very different from Sinai in 1981, the year when most of the field work for this Report was done. This section outlines a vision of Sinai as it would develop if the Recommended Strategy is implemented; it then summarizes the major projects and programs to be put in place as the vision is made real.

2.1 PROFILE OF SINAI IN THE YEAR 2000

2.1.1 Population

Sinai in the year 2000 is targeted to have a total population of about one million (compared to roughly 172,000 in the early 1980's). Given the very rapid increase in population which is projected, it follows that more than half of the residents are likely to be migrants born and raised in other parts of Egypt. In addition to permanent residents, Sinai is expected to cater to military personnel, mostly on tours of 6-24 months duration, and, at their seasonal peak, perhaps twenty, fifty, or even one hundred thousand tourist visitors, who will stay anywhere from a few hours to several weeks each.

Sinai residents will live in a dispersed pattern of settlements, distributed in the five planning subregions as follows (population in thousands):

<u>Subregion</u>	1982 (estimated)	2000 (projected)
All Sinai, total	<u>171.9</u>	<u>973.1</u>
Northwest	14.4	167.1
Northeast	117.4	453.8
Uplands	19.2	170.0
Southwest	17.8	137.5
Southeast	3.1	44.7

2.1.2 Hierarchy of Settlements

Residents of Sinai would live in several dozen settlements, varying in size from small villages with a few hundred inhabitants to at least one city of over 200,000.

<u>Population size of settlement</u>	<u>Estimated number of settlements</u>	
	1982	2000
All Sinai, total	<u>28</u>	<u>37</u>
Small settlement/market center, under 5,000	26	18
Service center/small town, 5,000-25,000	1	12
Growth point/large town, 25,000-50,000	0	5
Growth pole/city, over 50,000	1	2

To build this hierarchy of settlements will require a major effort in town planning and the construction of basic social amenities. In the field of housing alone it is estimated that 160,000 to 190,000 dwelling units will be required.

2.1.3 Water Supply

The key to large scale development in Sinai will be the provision of dependable water supply in sufficient quantities to cater not only to household requirements estimated at 30-150 liters per day by the year 2000 (compared to a fraction of that amount today) but also to the needs of irrigated agriculture (over 200,000 feddans), industry and other economic activities.

To supply this water throughout the peninsula will require development and operation of hundreds of deep wells (the exact number and size of these wells will depend on the results of an exploratory well-drilling program which began in 1981/82) and at least 2,600 kilometers of major conveyances (each having capacity equivalent to a pipe of roughly two meters in diameter) in a network of pipelines (and canals) bringing Nile water to four of the five subregions. The investment in major conveyances alone is expected to require LE 2,235 million by the year 2000.

2.1.4 Road Network

Rapid growth of economic activity within Sinai and development of the peninsula as a center for Middle Eastern trade will require ample transport facilities. The principal means of transport in Sinai is expected to continue to be by highway, although airports will play an important role in serving tourists, mainly from abroad, and in facilitating the exports of perishables (fresh vegetables, flowers, fish, etc.) and other high value commodities. Five or six small ports or harbors are also expected to play a vital role in short-haul traffic within Egypt and the Middle East as well as serving an established fishing industry.

The highway network in the year 2000 is projected to include over 2,100 kilometers of 7-meter, or better, metalled first-class highways as well as many secondary feeder roads and tracks of narrower width and uncertain surface. This network, to be built at an estimated cost of over LE 200 million, can be compared to the 1981 situation, when much of the same network was little better than dirt tracks, often impassable with normal commercial vehicles because of sand dunes or bad surface conditions; only a few hundred kilometers of these 1981 roadways were considered "first-class" (i.e. 6-7 meter width, generally paved surfacing, only occasionally in need of major repairs due to wash-outs).

2.1.5 Other Infrastructure

Volume VI of this Report gives details of physical and social infrastructure projected to support the year 2000 population of about one million inhabitants. For the purposes of this volume it is sufficient to note an estimate of over 150,000 children in several-hundred schools (through the secondary level), a university (8,000-10,000 students) and specialized higher technical training facilities, medical and other services at the same standard as in Nilotic Egypt, sophisticated waste disposal in larger towns and cities, and all the other amenities necessary to give Sinai an attractive life-style of its own with standards of comfort comparable to more prosperous communities elsewhere in Egypt.

2.1.6 Pattern of Economic Activities

The projected pattern of economic activities is intended to reflect full development of Sinai's resource potential for tourism (especially beach tourism, catering to both Egyptian and foreign clientele, with side trips to many other historic and natural attractions) and for mineral extraction and processing (not simply petroleum, which is already of major and still growing importance, but a variety of other materials including kaolin, ferromanganese, glass sand, and gypsum). More important, however, from an employment point of view would be industrial activities (projected to provide 47,255 jobs, including mineral extraction and processing, in 2000) and largely intensive, irrigated agriculture (projected to provide 121,300 jobs). To make up the total of 313,000 jobs projected for the year 2000, another 145,000 jobs would be provided by tourism, construction, government, transport, repair services, trading and a variety of other activities.

What has already been said about the major expansion of water conveyances, settlements, housing, road transport, and other infrastructure makes clear that an active construction and construction materials industry will be necessary to build the new Sinai, and that the activities of this sector are expected to prosper well into the 21st century as the growth of Sinai continues. Trade is emphasized not only as a lubricant of growth but also because of Sinai's geographic position at the center of the Middle East and along the major paths of travel in the Eastern Mediterranean.

Traditional rainfed agriculture and animal husbandry are expected to prosper partly as a result of the introduction of improved technologies.

2.1.7 Special Services

In addition to infrastructure and amenities already mentioned, Sinai in the year 2000 is expected to have gained considerable experience with on-going special programs to recruit new migrants, to assist them in adjusting to desert conditions and the Sinai life-style, and to train them for high-technology agricultural jobs or industrial skills which are new to them. Assistance in resettlement of newcomers from Nilotic Egypt is expected to accelerate throughout the 1990s as the pace of development in Sinai quickens.

2.2 MAJOR PROJECTS AND PROGRAMS

2.2.1 Construction

It follows from this brief profile of Sinai in the year 2000 that that next 15 years or so will witness a massive construction program, without precedent on the peninsula, to create among other things:

- 2,100 kilometers of paved highways, 7 meters or wider
- 2,600 kilometers of major water conveyances, some canals but mainly pipelines and pumping stations
- More than 160,000 units of new or radically improved housing
- Eleven new* and 26 greatly enlarged towns and settlements
- Twenty industrial estates and other major industrial structures
- Approximately 50 international-class hotels with about 5,600 rooms.

Activity on this scale will require a number of large, efficient construction contracting enterprises as well as public and private organizations to ensure efficient maintenance of structures once they are put in place. Given Sinai's natural endowment and stimulated by the regional development boom, the peninsula can also be expected to produce many construction materials in excess of its own, admittedly large, requirements for export to other parts of Egypt and nearby Middle Eastern markets.

2.2.2 Promotion of Production, Investment and Employment

Less visible, perhaps, but as important as infrastructure and other physical assets will be institutions that foster rapid expansion of production, employment and investment in Sinai. These institutions are necessary to create the economic base to support a growing population and to assist in attracting new immigrants. Among the most important of these year-2000 institutions are:

- A vigorous agricultural research and extension program, developing and testing new varieties of plants and new techniques of

*Includes two existing settlements, Abu Rudeis and El Hasana, which are to be relocated to new sites.

cultivation designed to increase production in the special ecological and climatological conditions of Sinai and to provide services to 50,000-80,000 farm families and enterprises working throughout the peninsula.

- An active tourism planning and marketing program, designed to maintain high rates of occupancy in Sinai's hotels as well as a high rate of growth in the leisure-visitor industry (in other words, a high rate of construction of new hotels and other tourist facilities): Institutions in this sector will be concerned to maintain quality standards appropriate to various segments of the tourism market and to ensure that suitable land is reserved for, allocated to, and developed or maintained in accordance with both actual and potential requirements of the tourist industry.
- An organization effective in promoting Sinai as a site for large and small scale industrial activities: It is expected that this organization will develop industrial estates (or free zones) in appropriate locations, assist manufacturing and mining enterprises to finance their operations and expansion, encourage cooperative marketing arrangements, and facilitate any special training their workers may require.

A primary responsibility of the national government and local (governorate) administration in the year 2000 is expected to be the provision of a framework of policies and services which encourages the rapid increase of production and employment in Sinai; without vigorous economic activity, population targets are unlikely to be achieved and resources cannot be fully developed. While institutions to encourage economic development are often recognized as required early to initiate development programs, they will in fact be required on a permanent basis, even after the year 2000, to maintain essential facilities and services, to continue to respond to changing needs of productive enterprises, and to encourage further expansion of viable economic activities.

3.0 THE PRESENT SYSTEM

The management of development is a task shared by institutions at both the local and national levels of government. It is a process in which enterprises and households participate actively. The development process is essentially one of mobilizing and activating private energies, but government policies and programs are necessary to trigger and harmonize those private activities.

3.1 HOUSEHOLDS AND INDIVIDUALS

The primary energy of every society comes from individuals or households. In Sinai this base of the development pyramid has shown remarkable energy and ingenuity, engaging in trade, farming, fishing, light manufacturing, construction, transport and service trades. Although solid statistics are difficult to come by, it is generally believed that individuals and households in Sinai are not now fully employed nor as yet well organized to implement community improvement projects. Tribal structures among families are still important and could be mobilized, at least to a limited extent, to assist in executing development programs--for instance, to improve range management in ways that benefit the entire livestock industry.

3.2 ENTERPRISE UNITS (PRIVATE)

Surveys of Sinai indicate that there are a number of enterprises in the private sector, providing construction, repair or retail services on a very small scale. Enterprise units capable of managing large development projects will have to be organized and will in many cases come from, or at least lean heavily on, units outside Sinai itself. One can expect that one major difference between Sinai today and in the year 2000 will be the emergence of many enterprises in the private as well as the public sector to manage factories, trading companies, construction, mining, hotel, retail, and other service activities compared to their relative absence today.

In fact, since the Israeli occupation ended, several of the economically most promising initiatives (for instance, in mining and tourism) have come from private concerns, both within and outside Sinai. Such enterprises frequently expect financial assistance, partnership arrangements, or other active support from government bodies.

3.3 ENTERPRISE UNITS (PUBLIC SECTOR)

In recent years the Government of Egypt has turned to government-owned enterprise units to manage important elements of its economic and social development programs. This tendency is already visible in and beneficial to the development of Sinai. One of the world's most

successful government-run companies, the Suez Canal Authority, has a particularly strong interest in Sinai and can be a particularly valuable manager of development activities in the future. The Canal Electricity Distributing Company (CEDCO) and ARETO continue to play a critical role in the provision of basic utility services. The Government's oil company, generally in partnership with foreign technical and marketing concerns, provides leadership in the critical petroleum sector. Other mining and manufacturing as well as tourist concerns are beginning to become active-- a trend which can be encouraged and accelerated. The military establishment will also have an absolutely fundamental influence on the pace and nature of development in Sinai; its managerial and technical skills can be an important asset just as roads, airports and other infrastructure, built initially to serve military needs, offer significant opportunities for the civilian community.

3.4 THE GOVERNORATES

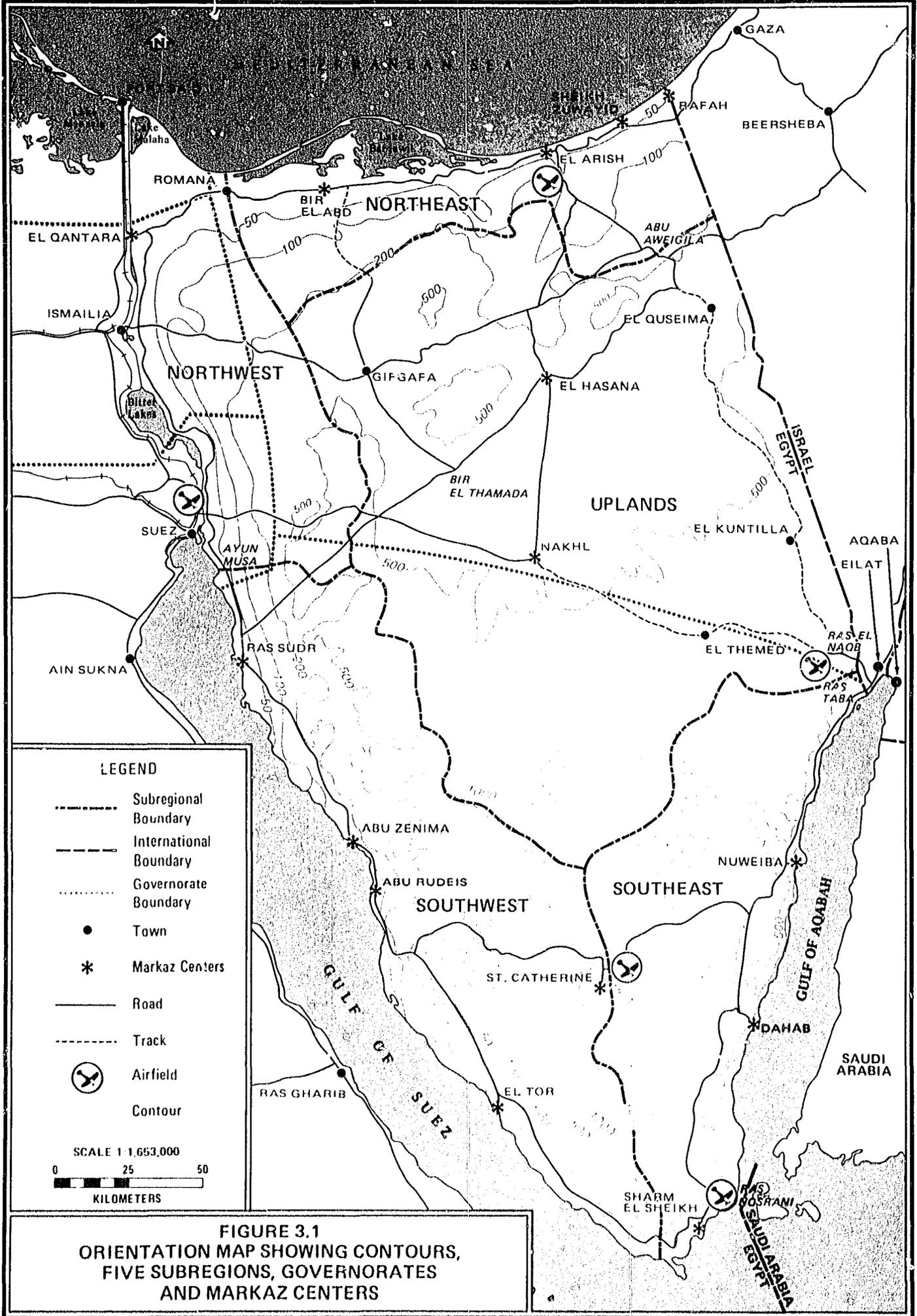
The principal inspiration and manager of development in Sinai, now and for the foreseeable future, is government, both local and national. This section of Volume II describes governorate functions; the following section deals with national ministries. However, it should be stated at the outset that there is substantial overlap, because service directorates of national ministries operate at the governorate level in the following important areas--education, manpower and training, health, housing and public works, social affairs, domestic trade and supply, and agriculture. Figure 3.1 shows governorate boundaries and markaz centers as well as subregions used for planning purposes in this Study.

Government in Egypt is and for many years has been characterized by a very high degree of centralization. However, during the last decade, the Government has increased the role of local units in planning, financing, and implementing projects to improve the quality of life in rural and urban communities. Sinai has not yet benefited very much from this movement toward decentralization, partly because it was considered a military area, subject to military rule and administration under the Ministry of Defense.

Local councils are important in local government, as discussed below. These councils have the potential for more administrative responsibility, especially if the process of decentralization proceeds satisfactorily.

3.4.1 Local Government Organization

The formal levels of organization within the Sinai governorates are as follows:



- Governorate headquarters: With responsibility for overseeing local government activities. It is noted that the three Suez Canal governorates extend about 30 kilometers into Sinai. The bulk of their population and economic activity is west of the Canal.
- Markaz: Administrative districts. Each markaz consists of a capital and a number of surrounding village councils. In the Governorate of North Sinai there are six markazs. The mayor of Bir El Abd, for example, is also the head of the markaz and is responsible for not only the administration of city affairs, but also various aspects of coordination of the municipal and village council governments within the markaz.
- City: Officially, nine municipalities were identified in 1981 as cities or towns. El Arish and El Tor are the capitals of North and South Sinai respectively, but they have the same status as other cities.
- Village unit: Groups of Bedouin settlements organized for administrative purposes; for example, there are six village units in the district of Bir El Abd, including Baloza, Romana, Rabaa, and Negila.

3.4.1.1 Governorate Level

The governor is appointed by the President and has ministerial rank. The governor presides over the Governorate Executive Council, composed principally of directors of those ministries with local government responsibilities (for instance, Health, Housing and Reconstruction, Education). The Executive Council is the official administrative body of the governorate. In a recent development, the Law of Local Government No. 50/1981 stipulates that a member of the elected people's council will be added to the Executive Council.

The elected councils provide representation from the various districts or towns. The council members were previously named by direct election, but in the future the party winning the majority will acquire all the seats on the local council. The powers of the local councils are limited to:

- Approval of the proposed budget for the governorate
- Approval of the distribution of funds among various units of local government
- Other administrative responsibilities (which are still being defined)

3.4.1.2 Markaz Level

A chief executive is head of the executive council of the markaz and the capital city. Membership on the council is composed of the directors of various ministries, in the same manner as at the governorate level. The elected council is formed from representatives of the town and the surrounding village units.

3.4.1.3 Town Level

The chief executive of the markaz or town is appointed by a decree of the Secretary General for Local Government. The executive council is much the same as the executive councils at the governorate and markaz levels. Representatives from the town are elected to the general council.

3.4.1.4 Village Level

The chief executive is appointed by the governor and presides over an executive council of four members--the headmaster of the primary school, the head of the rural health unit, the head of the social welfare section, and the head of the agriculture section. The elected council is composed of representatives from the village.

3.4.2 Internal Management and Personnel

A senior governorate official in Sinai reported in 1981 that 80 percent of the professionals in his governorate were seconded by other ministries and were reluctant to work in Sinai for a long period. The lack of qualified personnel is a problem in both North and South Sinai governorates, but is more serious in the south.

In South Sinai, only Ras Sudr had a town council and staff in 1981. El Tor, which recently became the capital of the governorate, has a chief executive and three staff members. St. Catherine has a chief executive, but no staff. Abu Rudeis' chief executive has a five-person staff, all seconded by the Ministry of Social Affairs; all services are rendered by the General Company for Petroleum.

Civil servants working in Sinai receive a 105 percent supplement over and above their basic salary--75 percent, remote-areas allowance, and 30 percent, living expenditure. However, this supplementary wage payment may not be adequate to induce people to work in Sinai, especially since similar supplements are available for work in several other governorates.

3.4.3 Comment

Local governments in Sinai face some problems typical of other regions in Egypt; however, many problems are unique, since Sinai was for so long under a military administration and includes a large nomadic population. Furthermore, authorities in Sinai must decide whether and to what extent the tribal organization should serve as an instrument for performing local services and for representation on local councils and other bodies.

Few markazs in Sinai have separate administrations, but most have elected councils, though their responsibilities are not defined clearly. (Many markazs in the Delta and Upper Egypt are administrative units, since they provide services to towns and villages).

There are multiple lines of authority and responsibility flowing throughout the governorates. In many cases, administrative officials serving the governorates are perceived to have more access to (or to be more responsive to instructions from) their Cairo colleagues than to the chief executives within the jurisdictions in which they serve.

The ability of North and South Sinai governorates to plan, implement, and monitor capital budgets is impeded by:

- the lack of qualified trained personnel
- the degree to which the governorates must depend on central agencies for the execution of important capital projects
- the absence of suitable accounting and management information systems.

All three Suez Governorates have since 1981 established planning departments with some professional staff.

3.5 NATIONAL MINISTRIES

3.5.1 Service Functions

Since the 1960s the Government policy toward decentralization has been to delegate selected governmental functions to local councils. Thus, education, health, social affairs, housing, and other services have been placed under the jurisdiction of the governorates. Governorate budgets contain appropriations for these functions.

The directors of the various service directorates at the governorate level and their counterparts in local government units prepare their own operating and capital budgets, under guidance from their Cairo counterparts. Although their budget requests must be approved by the executive and elected councils of the governorate, the director's primary relationship remains with officials of the Cairo ministries.

Generally, the directors of the service directorates are the final authority (and source of information) in the governorate. The role of the governor, and to a lesser extent the mayor, is to promote cooperation among the various governmental units and community representatives; their coordinative role is performed largely by persuasion, not authority. The principal executive officials, other than the governors, tend to have equal authority.

In 1980, to accelerate the process of decentralization, funds for new housing and for certain elements of potable water supply were shifted from the Ministry of Housing and Public Works to a headquarters function at the governorate level. More recently, new directorates for youth and for roads and bridges were established at the governorate level.

The following ministries have directorates within each governorate;

- Manpower and Training
- Education
- Health
- Housing and Reconstruction
- Social Affairs
- Domestic Trade and Supply
- Agriculture

The proposed budget for each governorate includes amounts for each of these directorates. At the governorate level these funds are allocated to the markazs, towns, and villages by the executive and elected councils.

3.5.2 Development Functions

In recent years budget proposals from Sinai Governorates have included requests for capital expenditures in areas not within the headquarters and directorate service groups. These requests covered:

- Agriculture and veterinary services
- Land reclamation (Green Revolution)
- Industry and mining
- Tourism and civil aviation
- Irrigation
- Telecommunications and transport
- Al Azhar Institutes
- Electricity
- Information

3.6 SINAI DEVELOPMENT AUTHORITY

3.6.1 Background

In 1974 the title of the Ministry of housing was changed to Housing and Reconstruction, reflecting the assignment of responsibility for rehabilitation and reconstruction of the Suez Canal Zone. In 1978 a separate and new ministry emerged--the Ministry of Development and New Communities, again renamed the Ministry of Development (MOD) in 1980 although still often translated as the Ministry of Reconstruction. (Figure 3.2)

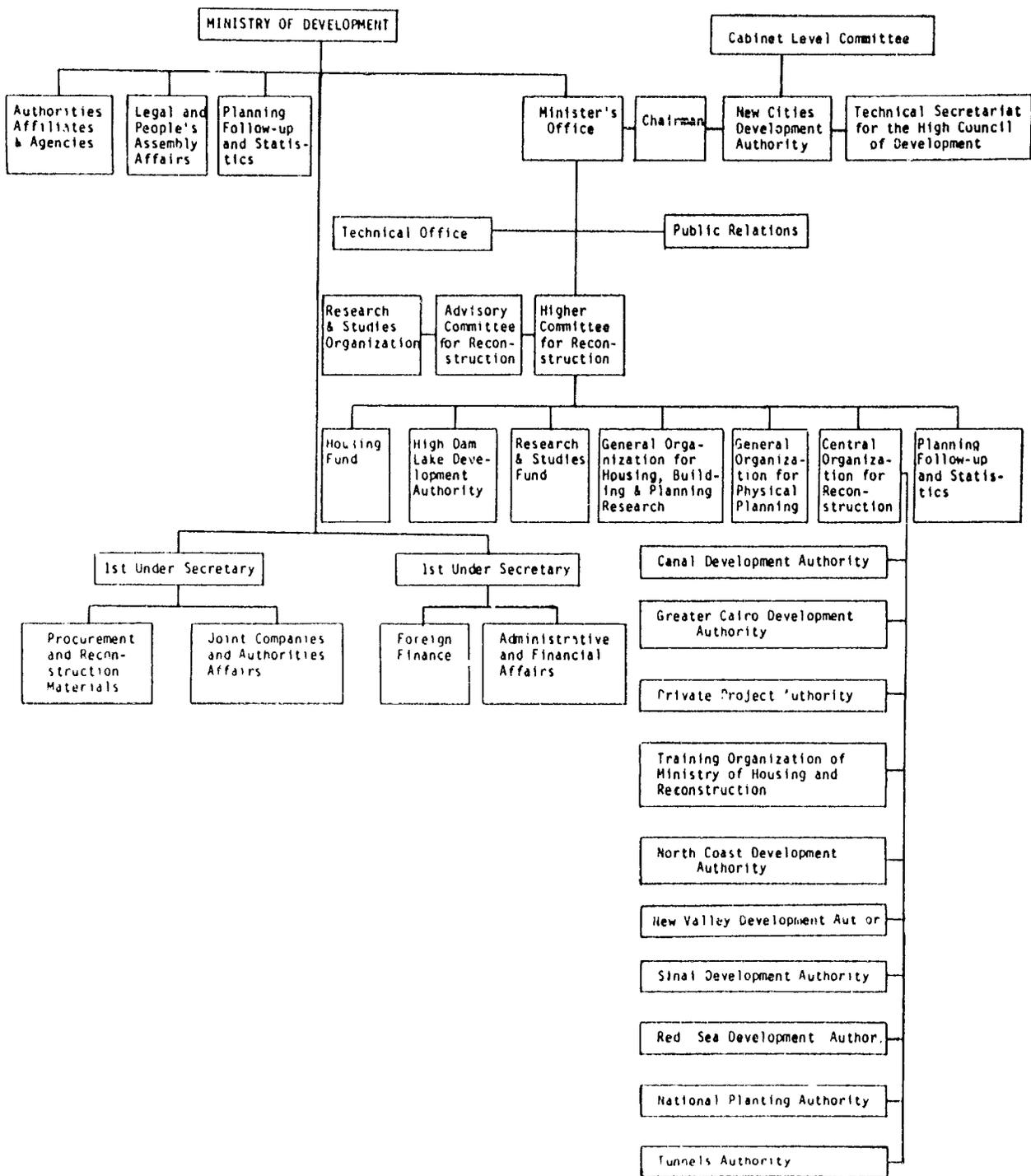


FIGURE 3.2
 ORGANIZATIONAL STRUCTURE OF THE MINISTRY OF DEVELOPMENT

The MOD's primary function is to direct comprehensive planning, to ensure that economic and social priorities are established, and to supervise implementation of projects at the regional level, especially in under-populated areas where Government has decided to establish new towns or major reclamation projects.

One of the affiliated agencies of the MOD is the Central Agency for Reconstruction. According to Presidential Decrees 114/1976 and 420/1978, the purpose of this agency is to study, propose, and implement reconstruction projects throughout Egypt. From the point of view of reconstruction, Egypt is divided into six areas--New Valley, Northwest Coast, Suez Canal, Red Sea, Sinai, and Greater Cairo. (The High Dam Lake Development has its own separate authority, also under the Ministry of Development.) The Central Agency for Reconstruction implements its approved projects through implementing agencies (for instance, the Sinai Development Authority).

The Sinai Development Authority (Figure 3.3) was established in 1974 to direct reconstruction and development of Sinai and towns such as El Qantara east of the Suez Canal. The agency started with an annual budget of LE 80 million in 1975, which was decreased to LE 10 million in 1981-82,* but has subsequently again increased very substantially. The Sinai Development Authority has the largest budget of the MOD's several implementing agencies and employs approximately 1,000 persons--about 100 of whom are engineers and architects.

The Desert Development Organization was engaged in land reclamation in Sinai in the early 1960s ; after 1973 its employees became the nucleus of the Sinai Development Authority. This base accounts partly for the agency's status and strength within the Central Agency for Reconstruction. The Sinai Development Authority implements its projects mainly through contracts with public companies, such as Arab Contractors, Beheria, and the Real Estate Company.

3.6.2 Organizational Structure

The Sinai Development Authority is organized under a director, with two sub-units for Security and Public Relations/Complaints and five operating departments:

- Agricultural development: Rehabilitation and expansion to 30,000 feddans of reclaimed land east of Bitter Lakes.
- Engineering: Physical planning projects (roads, water, sewerage, electricity) including planning and implementing a new urban community, New Mit Abul Kom, also east of Bitter Lakes.

* Personal communication, President of the Central Agency for Reconstruction, Ministry of Development

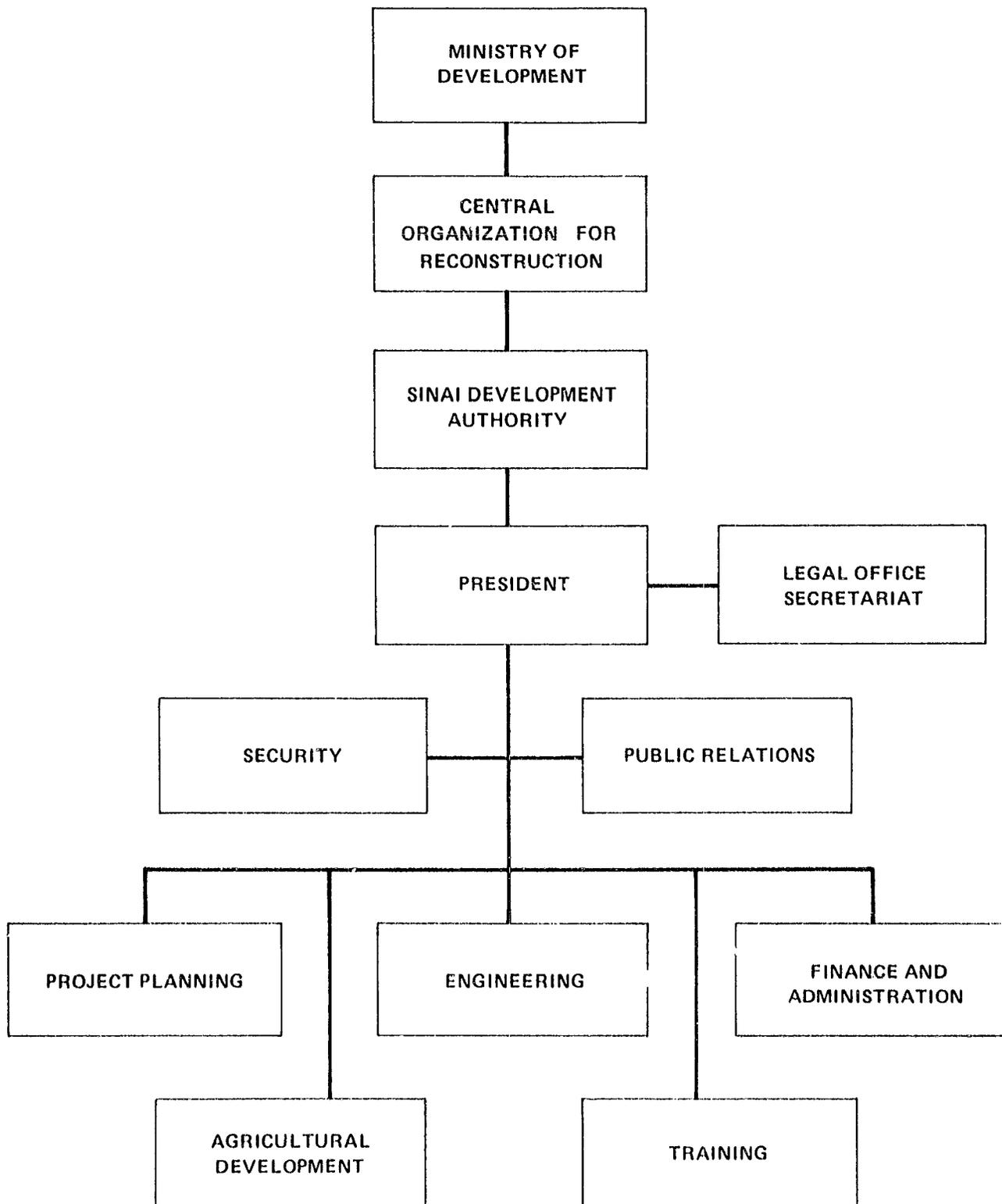


FIGURE 3.3
UNOFFICIAL ORGANIZATION CHART
SINAI DEVELOPMENT AUTHORITY

- Training: Providing skilled and semiskilled workers required for reconstruction activities. Two centers in Sinai have trained 6,000 semiskilled laborers. The allocation in the 1981/82 budget for training was LE 200,000; in 1982/83 an allocation of LE 600,000 was earmarked for construction of a training center in El Arish.
- Project planning: Identification and design of various projects in agriculture, infrastructure, and social services.
- Financial and administrative.

3.6.3 Typical Development Activities

A review of the capital program of the Sinai Development Authority for recent years confirms that the agency functions over a wide range of sectors. Its developmental activities include projects in nine categories:

- Housing
- Water and sewerage
- Transport and communications
- Electricity
- Services (social, educational, and cultural), mosques, tourism, physical planning, and cooperatives
- Trade and supply: markets and automated bakeries
- Land reclamation (agriculture)
- New communities (for example, New Mit Abul Kom)
- Studies and research

Except for industrial and petroleum activities, the agency directs some programs in all the developmental and service areas. Many of the activities managed by the Authority are normally the responsibility of other central ministries or local governments, such as tourism, civil aviation, transport, and other services. The activities of the Authority are not confined to construction but also occasionally include studies, research, and planning.

The Sinai Development Authority began as the sole development authority in Sinai, acting on behalf of the other central ministries and local government. In recent years many of the new capital projects have been transferred for construction or operation to the headquarters of the governorates and to the concerned ministries. By 1981 the agency's capital program was concentrating on the completion of ongoing projects and the initiation of projects only when they fell under the normal jurisdiction of the Ministries of Reconstruction, Housing, and Land Reclamation.

3.7 OBSERVATIONS ON THE PRESENT SYSTEM

3.7.1 Accomplishments

There is a vitality in Sinai today which reflects well on those who are responsible for managing development of the peninsula. Among the accomplishments in recent years the following illustrations give the flavor of a program too large to describe fully in this Report:

Construction of Infrastructure

- Major rehabilitation and substantial realignment of critical highways, particularly along the north and southwest coasts.
- Completion of hundreds of apartments and other new dwelling units in El Arish, Ras Sudr, El Tor and other locations.
- Construction of pipelines, storage tanks and pumping stations to assure adequate supplies of drinking water to northeast settlements as far from the Suez Canal as Bir El Abd; also replacement of wells and storage tanks in the Rafah Strip.
- Private activity to improve and expand housing, dig or restore wells, and re-establish businesses.
- Major new government office structures, schools, hospitals, health clinics, and similar facilities, especially in governorate and markaz capitals.

Expansion of Production

- Continued expansion of petroleum exploration and production.
- Initiation of large scale center-pivot and drip irrigation projects east of the Bitter Lakes (at least 11,000 feddans scheduled to be irrigated by the end of 1984).
- Initiation of major salt production at Lake Bardawil (the first stage of a salt-based chemical complex).
- Restoration, expansion, or initiation of production of dates, barley, olives, watermelon, tomatoes and other vegetables, chickens (broilers) and many other foodstuffs.
- Restoration of fishing activities in Lake Bardawil after re-dredging channels to the Mediterranean.
- Introduction of new crops, especially among small farmers in South Sinai through imaginative work of extension officers.
- Hotel service expanded in El Arish and restored at St. Catherine's and along the Aqabah coast, able to serve both local and international tourists.

Staffing and Institutions

- Governorate administrative cadres greatly increased to provide more active assistance throughout the peninsula and in all sectors of economic and social life.
- Schools reopened for all who wish to be students at elementary and secondary levels, with a full complement of teachers.
- Development Bank organized with Headquarters in El Arish to assist in the expansion of industrial and agricultural production.

3.7.2 Criticisms

Although it is widely acknowledged that the reconstruction and development process is being vigorously pursued, nevertheless there is still much criticism of how the process is managed. A discussion paper, circulating in the Ministry of Development in November 1981, summarized the situation as follows:

"The promise and opportunities of Sinai are great. The complexities and challenge are equally great. In order that the promise and opportunities be realized, new modes of action, organization, mobilization of resources, and responsibilities are required. Existing organizations, organizational arrangements and organizational resources are insufficient and inadequate to the challenge and task of developing Sinai."*

So harsh a judgement is probably inevitable where high expectations are bound to exceed the possibilities of service delivery in a region that has been isolated for decades, was recently disrupted by war and occupation, and never before was host to as large a population as now proposed. Some of the most commonly heard criticisms are listed in this section; they are instructive for those whose responsibility it is to design a management system adequate to execute a complex and ambitious program of development during the next decade or two.

Planning and Coordination

- Inadequate mechanisms for formal consultation, as well as coordination, between governorates and the Central Government agencies like the Sinai Development Authority. Similar weaknesses in formal consultation and coordination among the five Sinai governorates and among concerned ministries.
- Responsibility for planning unclear, with the Ministry of Planning (and its Region Three unit), the governorates, the Advisory Committee for Reconstruction, the Sinai Development Authority, and a Cabinet Subcommittee among the entities most frequently mentioned as having planning functions or authority.

* Full text of the discussion paper is reproduced as an appendix to this volume.

- Reliable information needed for planning is seldom available, and no one has been clearly designated to see that information is improved and more widely disseminated.
- Poor monitoring of performance against targets (which themselves are vague).
- The current diversity of "planning" agencies is not directed toward consolidation into a stronger regional organization or more effective coordinating mechanisms at the governorate level.

Research and Development

- Many studies have been conducted concerning Sinai and some are still going forward. There is no central point where all past studies are available for reference, where ongoing studies can be coordinated, or where priorities can be assigned to proposed new research.
- Pilot projects are recommended to test new techniques of irrigation, dune stabilization, solar desalinization, rural settlement, and many other possibilities, but there is no agency in Sinai to sponsor, support or draw lessons from such experimentation, which would produce inputs vital to the success of long-term plans.
- Research needs to be more closely coordinated with Plan priorities, and arrangements are necessary to ensure that promising results of pilot projects are quickly replicated over a wider area of Sinai.

Construction Costs and Scheduling

- Few people seem to know when specific projects, even major projects, are due to be completed, nor is there widespread confidence that reported deadlines will be adhered to. A skeptical view is often expressed to the effect that even very essential projects (for instance, water pipelines) will not be completed promptly or function reliably.
- Construction activities are hazardous for people in the vicinity; for instance, roads under construction are dangerous, especially at night, since unfinished paving is not well marked.
- Cost per kilometer, per housing unit, per square foot of commercial space and by other unit measures are said to be high (quite high relative to quality); more data are needed to compare costs among various modes of construction within Sinai and to compare recent Sinai experience with similar recent construction elsewhere in Egypt.

- While much has been built and many improvements have been made in recent years, the results are not properly matched to the need. For example, while ferry crossings have been improved by construction of permanent landings, procurement of more boats, and lengthening the hours of operation, the total capacity remains far short of demand and long waiting periods are still common. Elsewhere excellent roadways and expensive bridges are available where there is very little traffic or expectation of traffic, but some heavily traveled routes are poorly maintained. Dredging of Lake Bardawil inlets has resumed, but there are reports that dredging is not as early or as extensive as is required; no serious research is reported on the possibility of permanent seawalls to reduce dependence on annual (or constant) dredging.
- As in many similar situations, new construction seems relatively well-staffed and amply-funded; by comparison maintenance has inadequate resources, for instance, to keep roads passable when flash-flooding or sand-duning damages them.

Local Priorities

- For some projects it is said there has been inadequate prior consultation with and enrollment of local people. Thus, projects are done for or imposed on people, often without their consent or enthusiasm; prior consultation and participation, critics argue, would improve relevance and probably lower the cost to the government of what is done.
- Governorate decisions and personnel seem to be more widely known and trusted than "carpetbaggers" from Cairo or Ismailia.
- While powerful central government agencies endowed with ample resources are engaged in many activities, especially construction of infrastructure, which are of great value to Sinai, they are not doing this work in ways which build permanent capacity among local administrative and operating (including contracting) organizations, on whom the main burden of future development will rest.

Water Planning and Management

- There is no clear, comprehensive responsibility for water resources development, planning or management, although water is acknowledged to be the critical resource on which the shape and success of all future development depends. Traditionally in Egypt, the Ministry of Irrigation in Cairo is responsible for all aspects of Nile water use, and to serve this purpose the Ministry has recruited and trained a large, talented and very experienced staff. However, many observers allege that this traditional situation cannot adequately serve the special circumstances of Sinai.

- Groundwater is of special importance in Sinai, but governorates are not yet staffed to see that it is properly researched, fully developed, or adequately protected.

Land-Use Planning

- As in the case of water there is uncertainty as to which agencies of government can, do, or should have responsibility for deciding and enforcing land-use allocations.
- There is debate whether land-use planning should be associated with water planning and management, or alternatively, staffed as a separate function in a different agency from water.
- There are opportunities for development in Sinai which can be realized fully only over a substantial period of time--perhaps two or three decades. In the case of tourism, for instance, very substantial local and international beach tourism is foreseen by the year 2000. However, these future opportunities depend heavily on actions, which must be taken now, to reserve beach fronts and other resources which may be needed later. Such actions have not been taken, and questions have been raised about which agency of government has the authority and ability to plan, execute, and enforce zoning or other measures necessary to keep open all promising possibilities for future development.
- Given plans to increase the permanent population of Sinai to five or six times its present size, a massive town-planning effort will be needed. No regional or governorate organization is yet equipped to undertake this task, which includes both the siting of new settlements and planning the rapid expansion of existing communities.
- Similar uncertainty exists regarding responsibility for environmental concerns. While it is recognized that large-scale development, a rapid increase in population, the introduction of more than one milliard cubic meters of Nile water per year and significant industrialization could have a significant, possibly adverse, impact on the environment, there is no agency responsible for monitoring these impacts or enforcing protective measures. Environmental management in Sinai cannot be avoided; it is believed to be essential to preserve coral and other natural features which provide the basis for expanding tourism income and also to maintain the productivity of proposed agricultural settlements.

Economic Development/Job Creation

- While infrastructure construction has been proceeding rapidly, there has been relatively little attention paid to commodity production and employment generation, although unemployment and underemployment are widespread. Responsibility for promoting new employment opportunities is not clearly defined at the regional or governorate level.

- Some permanent jobs are being created by large projects (for example, in petroleum exploration and production, salt production, and the Marriott hotel at El Arish). However, at present Sinai offers very inadequate facilities and services for small enterprises, especially those in the private sector; experience elsewhere in Egypt and throughout the world suggests that such enterprises represent a far larger source of jobs and a more important source of commodity production and other economic services than bigger public sector organizations. Neither central ministries nor governorate offices are actively promoting new employment opportunities on a wide scale in Sinai.
- While agricultural extension activities do exist, they are not yet on the scale needed to implement the Recommended Strategy. Varietal research, new cropping patterns, water-spreading technologies and many other advisory services will be needed by farmers in Sinai, including new settlers, to maximize production and income. Given the special circumstances of Sinai, research and extension in Sinai will require special efforts, organized for the peninsula as a whole, significantly supplementing services provided by the agricultural directorates at the governorate level or research programs centered in Cairo.
- Recruitment of skilled workers is currently on a project-by-project basis. As development activities expand, recruitment and training can emphasize peninsular needs in order to encourage permanent settlement, not only of project construction workers, but also of their families. Governorates or a new peninsular agency are expected to take responsibility for manpower planning, recruitment and training, consistent with an overall strategy of development in Sinai.
- No immigrant reception or orientation centers yet exist at governorate and markaz levels.
- Plans of large national organizations for Sinai are not known at the local level, which in any case should not remain so totally dependent on decisions made outside the peninsula.

Revenue Base

- Although expected to build and maintain expensive infrastructure and to provide services required to foster very rapid developments, Sinai, being sparsely populated and underdeveloped, has a very inadequate revenue base and thus cannot take responsibility for financing a significant portion of its own expenses, nor does it have the resources it needs in order to take the initiative in solving even the most urgent of its development problems.

4.0 FUNCTIONAL ELEMENTS OF DEVELOPMENT MANAGEMENT IN SINAI

The system for managing development in Sinai will need to mobilize coordinate and utilize resources on a sufficient scale to transform the pattern of settlement and virtually all aspects of socio-economic life in a peninsula of about 61,000 square kilometers. In this chapter a number of functions to be performed by management are discussed under five headings. Topics covered were identified by what foregoing chapters have said about the tasks to be accomplished and recent experience with existing administrative structures. Alternative ways to perform those functions are explored. The basic purpose of an improved management system will be not only to maintain the momentum of recent construction and planning but also to accelerate the pace and widen the scope of development.

4.1 PLANNING AND COORDINATION

A proposal circulating within the Ministry of Development in November 1981 stated in part:

"Sinai is an integral whole whose development involves a multiplicity of interdependent projects and governmental units. The complexity of the undertaking can best be integrated and achieved efficiently and effectively by a single coordinative center and development plan. Many development projects require capabilities not yet developed in Sinai and expensive and difficult to duplicate in existing units of government in Sinai. The size and complexity of the development endeavor require a greater flexibility for implementation and continued planning than existing governmental units possess, particularly in the initial years. Both planning and plan execution at the scale and complexity of Sinai have to be carried out together in order that the requisite flexibility and control...can be obtained."

Officials concerned with development in Sinai seem to agree that:

- Planning with a 20-50 year perspective is desirable
- Many different activities need to fit together in a coherent, mutually reinforcing manner
- Responsibilities of different agencies and entities must be more clearly defined and more closely coordinated
- Many ministries, departments, agencies and private organizations will have to collaborate within the framework of an officially endorsed and commonly accepted strategy and plan
- Activities in Sinai must be integrated with larger programs and purposes of Egypt as a whole
- Planning in Sinai includes a large component of physical planning and land-use allocations; within this broad generalization are included such diverse activities as

(a) reserving coastal areas both to protect coral, mangrove and similar resources and to keep open opportunities for future promotion of large scale, quality-conscious beach resorts and
(b) town planning to give shape and order to the rapid growth of settlements implied by the planned sixfold increase in population in less than two decades

- Special problems of water management will inevitably play a major role in all aspects of coordinated planning in a desert area such as Sinai
- Implementation of myriad projects and programs should be monitored closely, so that remedial adjustments, if needed, are undertaken in a timely fashion and lessons learned in one phase of development can be applied quickly to plans and activities in later phases (Figure 4.1)
- Research results should be transferred quickly to personnel responsible for project execution
- A growing data base will provide information which must be communicated quickly among several sectors and throughout more than a dozen subregional zones

The only organization currently in existence which might be considered to have this range of planning and coordinating power is the Cabinet Subcommittee on Sinai, established in April 1982. However, coordination is needed not merely in matters of national policy affecting Sinai but also on the level of daily administrative action. The planning and coordination requirements of Sinai necessitate an organization whose leadership and staff make these functions their full-time activity. The concern at this stage is not so much with Cabinet-level review but rather with the heavy load of day-in-day-out activities required to foster and accelerate the pace of development in many sectors, settlements and subject areas.

Alternatives for providing appropriate planning and coordination include:

- The governorates, which, it is argued, could be given additional staff and perhaps technical assistance as well. This alternative would work for a limited range of activities but would be weak where coordination among governorates (or "peninsula-wide") was required. It is also argued that a regional entity, larger than any single governorate, could attract a more diverse, better trained "critical mass" of skills required for many planning and coordination functions.
- Frequent (say, at least monthly) ad hoc consultations among the five Governors, concerned Ministers, the Heads of the SDA and the Suez Canal Authority and similar interested entities: The infrequency of meetings of the Cabinet Subcommittee on Sinai during its first year of existence and its difficulty in arranging adequate "secretariat" staff support suggest how impractical or ineffective this alternative would be, except occasionally when major policy issues are to be decided. The Ministry of Local Government's Governors Council (6 Governorates) could provide a forum.

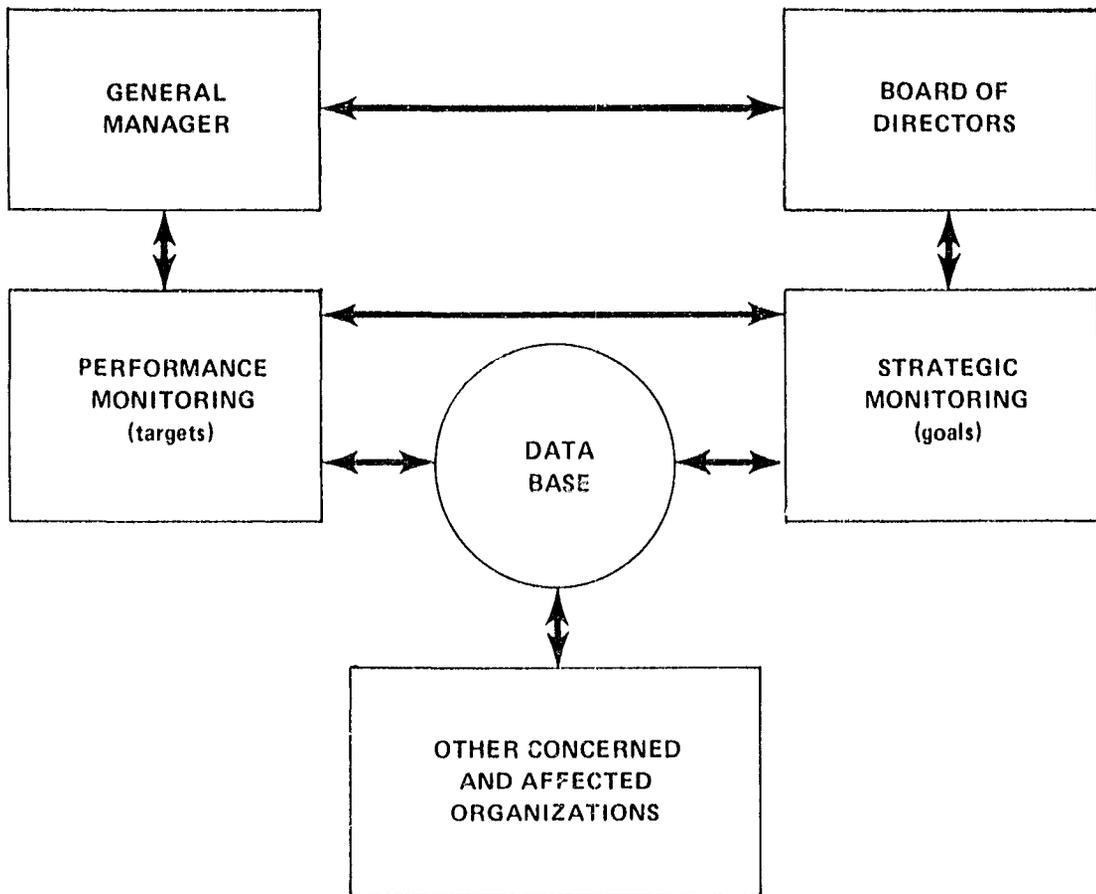


FIGURE 4.1
 MONITORING THE SINAI REGIONAL DEVELOPMENT STRATEGY
 (Responsibility and Primary Information Flow)

- The Region Three Planning Unit of the Ministry of Planning, which could be enlarged to reflect the government's special concern for Sinai: This would mean that the coordination of activities within Sinai would be linked to plans for the larger Region, including principally the Suez Canal Governorates. This concept has been criticized on the grounds that an area like Sinai needs attention undistracted by the demands of the more developed parts of Region Three. Moreover, neither the Ministry of Planning nor its regional units have enjoyed the power to implement as well as plan; nor do their traditions suggest the kind of day-to-day coordination of many specific projects that the Recommended Strategy for Sinai requires.

- A Planning and Coordination Department, organized within the Sinai Development Authority (SDA): It has been suggested that the SDA be authorized to create and staff a high-level planning and coordination unit. To be effective the unit would require a substantial qualitative expansion of the mandate of SDA, particularly with respect to its authority over other ministries and agencies. As presently constituted, the SDA is mainly concerned with implementation of major public works projects, based on plans formulated elsewhere. The SDA has no responsibility for conceiving a strategic or long-term framework for development. The present SDA is responsible for implementation, not planning. If SDA were transformed to handle larger responsibilities, a policy-making board, including the five Sinai governors and several ministers, would become responsible for establishing broad guidelines within which SDA staff could operate. In other words, for SDA to perform both day-to-day and policy-level planning and coordination functions, it would have to be reconstituted as a quite different agency from its present role as a major public works department, implementing projects assigned to it by others. Such a radical transformation of the SDA, if carried far enough, would make it resemble another alternative, mentioned next.

- A new Sinai Regional Development Agency (SRDA): Some proponents of this alternative see it as a transformed SDA--transformed primarily by the assignment to it of the kind of planning and coordination functions that are the subject of this chapter and also by creating a policy board, representing roughly the same broad span of interests as the Cabinet Subcommittee on Sinai. Thus the proposed Sinai-wide Agency would provide a knowledgeable and experienced secretariat for the policy-makers as well as a strong day-to-day capability in both planning and execution, built on SDA's years of experience in supervising major reconstruction projects.

The alternatives are outlined and rated on the matrix overleaf, which assumes some strengthening of governorate staffing (including technical assistance to the extent that such assistance is found desirable), very little change in other existing entities, and perhaps an unrealistically "perfect" mix of capabilities in the proposed new SRDA. Since the latter has not been created, this type of analysis runs the risk of endowing the new agency with ideal powers and talents. The aim, however, is to be

Table 4-1

Evaluation of Alternative Ways of
Providing Planning and Coordination Functions
Required for Rapid Development in Sinai

Coordination or planning function	Alternative institutions					
	A	B	C	D	E	F
<u>Major policies</u>	+	+	++	+	-	+++
Long-range perspective plan	+	+	++	+	-	+++
Define responsibilities	+	++	++	-	-	+++
<u>Day-to-day coordination</u>						
Among sectors	+	-	-	-	-	++
Among subregions	+	-	-	-	-	++
With rest of ARE	+	-	-	-	-	++
Among ministries and agencies	+	+	+	-	-	++
<u>Water planning</u>						
Major conveyances	-	-	-	+	++	+++
Local wells, structures	++	-	-	-	+	++
<u>Land-use planning</u>						
Reservation for use in year 2000 and later (set aside and release)	++	+	-	-	+	+++
Conservation areas (management)	+	-	-	-	-	++
Towns: site selection	+	-	-	-	-	++
Towns: master planning	+	-	-	-	+	+++
<u>Research and information</u>						
Basic (including pilot projects)	-	-	-	-	+	+++
Monitoring	++	+	-	+	+	+++
Build data base	++	-	-	+	+	+++
Dissemination	++	+	-	-	+	+++

A The Governorates, strengthened with additional staff and technical assistance.

B Frequent ad hoc consultations among the five Governors, concerned Ministers, heads of SCA, SDA, et al.

C The national Cabinet Subcommittee constituted in April 1982.

D Region Three Planning Unit of the Ministry of Planning.

E Sinai Development Authority with some redefinition of functions and strengthening of staff.

F Proposed New Sinai Regional Development Agency.

realistic in judging, first, whether any existing organization can be empowered to perform the functions needed and in imagining, second, what combination of powers would be proper to assign to a new entity. In the particular case of Sinai it is also useful to keep in mind (a) the possibility of a major transformation of existing entities (for example, the governorates or the SDA) to perform new functions, (b) the time-period required to implement such major changes, and (c) the interim arrangements that would be necessary to carry forward development even while more "perfect" management structures are being created.

In reviewing this evaluation matrix readers are invited to make their own lists of the planning and coordination functions they consider important, perhaps ranking some as more important than others. A second step would be to consider which of these functions must be combined within a single agency, which could be grouped but need not necessarily be together (for instance, water plans and management might be handled by a specialized agency, as discussed in the next chapter of this report), and which functions are best kept separate (for instance, research vs. planning vs. execution vs. monitoring vs. evaluation). Those responsible for the development of Sinai would be well advised to make an early decision regarding the best combination of functions for the 1980s, keeping in mind that it will probably be desirable to review that decision some years from now and to make fresh decisions for the 1990s and beyond. Although several types of planning and coordination activities are discussed in this section and all these activities are considered important to the efficient development of Sinai, it is not necessary that all these functions be performed by the same agency (only that they be performed). Moreover, it would be wrong to conclude that the agency performing most of these "planning and coordination" functions should be excluded from activities discussed in later sections of this chapter; on the contrary, many experts recommend that planning and implementation functions be combined if quick results are to be obtained amid the difficulties and uncertainties of a newly developing or previously neglected region.

4.2 LOCAL PARTICIPATION AND CONTROL

One essential function of the new management system in Sinai will be local participation and control. When local preferences, interests and priorities are taken fully into account, the results, in terms of development, are usually much more satisfactory--namely, more use is made of the facilities, they are better maintained, and they complement other activities being undertaken in the area. This consideration is reinforced in a situation where substantial migration is expected. The new Sinai must cater to both old and new residents; the new Sinai will use indigenous and imported resources. Local participation in development decisions is required not to allow local interest to dominate a process which is national in its purposes and resources, but to give them an equitable voice when technically and financially powerful outsiders could otherwise take so many of the basic decisions affecting Sinai.

Of all the "managers" currently active in Sinai the Governors seem most conscious of local needs and preferences. However, even they are appointed, generally for not very long terms, from outside and are almost totally dependent on Cairo for financial and manpower resources.

Early in this volume development is defined as at least partly a process of releasing the energy and inspiring the enthusiasm of individuals. To the extent that residents of Sinai, including new migrants, feel that they "own" plans for the peninsula, that they influence what goes into these plans and benefit from what is done under them, such energy will be released. Even an ideal program of "works" and investment will not produce optimum results if that sense of "ownership" and commitment is missing; even an inadequate plan can be adjusted to achieve greater efficiency if popular support, initiative and enthusiasm are enlisted in its formulation and implementation.

4.3 GENERATING PRODUCTION AND EMPLOYMENT

Throughout the SDS-I, as reflected in this Report, great stress has been laid on generating production and employment opportunities in Sinai. Activities to promote economic enterprises which are viable in the long run represent one essential dimension of the Recommended Strategy. A key measure of success in execution of the Strategy will be the number of permanent jobs created at sufficiently high levels of income to attract new settlers as well as to hold the existing population and its progeny. It follows that a major function of those responsible for managing the development of Sinai will be to create jobs and foster efficient production in many different lines of economic activity.

- Agricultural research is needed to determine varieties of crops and patterns of cropping that will yield good returns in the special circumstances of Sinai. New technologies are still being developed for arid zone agriculture, both irrigated and rainfed, and Sinai can aim to be a leader in these worldwide research and development activities.
- Extension services are needed to disseminate quickly the results of experimentation and of successful farm experience with new, more remunerative agricultural practices.
- More than 200,000 feddans are to be developed for intensive irrigation based largely on groundwater and substantial importation of Nile water. Settlers on such reclaimed land will need special assistance to adjust to their new opportunities and surroundings. Before they can be settled a complex chain of soil studies, engineering plans, land preparation, crop research, construction of ancillary facilities (for instance, for marketing, credit and storage), and water projects must be completed.
- Active promotion of industrial and mining activities is recommended to provide about 47,255 jobs in more than a dozen towns and cities throughout Sinai.

- Special attention will be required to bring large projects (for example, the proposed petrochemical complex, or a new steel mill on the Gulf of Suez coast) to Sinai, since these mega-schemes will have a catalytic effect on many other activities (including so-called "upstream" and "downstream" industries) as well as a profoundly positive reinforcing influence on smaller investors.
- At the other end of the size-spectrum, special programs are also needed to encourage small-scale industries and handicraft production.
- Tourism is also expected to make good use of some of Sinai's most valuable natural resources, to provide many thousands of jobs as well as an influx of travellers from elsewhere in Egypt and abroad, and to be a spur to further economic development (for instance, as visitors see opportunities for investing their own funds in the development of Sinai's resources). Land development schemes for Egyptian tourists from Cairo and the Delta will require different management and promotion from projects focused primarily on international travellers and vacation-seekers.
- Given the rapid pace of investment, construction and service trades will have many opportunities to develop within Sinai, provided local managers of development assist local enterprises and suppliers rather than favoring goods or services imported from outside the region.
- The promotion of productive enterprise activities generally requires close coordination with construction of infrastructure, so that reliable road transport, water supply, telecommunications, and similar vital services are quickly available to newly created farms, factories, mines and hotels. Infrastructure would be largely wasted without permanent productive activities to make use of it; conversely, production facilities can be paralyzed where infrastructure is inadequate.
- Similar coordination between enterprise requirements and government-sponsored training programs is desirable, so that producers do not bear the full cost or suffer tedious delays in hiring resident personnel (including newly arrived in-migrants from elsewhere in Egypt).
- Rural development involves a complex of small varied actions, which generally involve motivation, information, and coordination from governmental organizations if they are to mobilize fully the potential energies of the countryside. Wells, dams, dikes, warehousing, cold storage, packing, sorting, training, marketing, transportation, credit, seed, animal husbandry (including small and large animals as well as poultry), agro-forestry, improved grazing, forage crops, cisterns, tools, pumps, machines, rural roads sanitation, functional literacy, agriculture, orchards and many other elements are generally combined in the most successful rural development programs. Government initiative is most effective when it catalyzes a host of private responses, spreading new ideas and methods through the sale of seeds or tools, reinstallation of wells, or contracting to market additional production.

At present there is no agency of government nor any other part of the "management system" in Sinai whose primary responsibility is the promotion of economic activities. The North Sinai and South Sinai Governorates are more concerned with economic development than perhaps any other entities; but the governorates have myriad responsibilities for law and order, public services, infrastructure construction and other important tasks. Moreover, the governorates have inadequate financial and technical resources to be very effective in promoting new productive enterprises.

In the tourist sector one or two specialized organizations are reported to have taken responsibility for promoting growth and development, but they are not well-funded and appear to be working to deal with difficulties as they arise rather than to fashion and implement a long-term plan which would take full advantage of the large, multifaceted opportunity for tourism on the peninsula.

Central ministries of government have shown special concern to identify and sponsor projects in Sinai; but they also have many other responsibilities and constituencies. Central government agencies cannot be expected to press single-mindedly for, say, industrialization in Sinai over the next 15 years.

The SDA, as presently constituted, is responsible for major public works projects; it is not central to the present way of thinking in SDA to take an active interest in promoting commodity-producing activities which would make use of the infrastructure it builds.

A development bank started operations in El Arish in 1982, and various credit programs are available to farmers; but in the nature of the banking function these institutions are limited in the amount of active promotion they can do.

To execute the Recommended Strategy an "economic development thrust" is essential. It seems urgent to assign this responsibility to some agency (or group of agencies) which is single-mindedly and energetically devoted to bringing productive enterprise (and thereby job opportunities) to the peninsula. An agency must stand forward in the councils of government to ask, "And why not Sinai as the location for 'X' activity you are considering?" Some voice even more powerful than the normal lobbying of governorates is needed if Sinai is to promote the economic activities which are fundamental to achieving the other objectives the Government of Egypt has set for it.

Arrangements to generate a rapid increase in production and employment can be organized by:

- Rural development
- Irrigated agriculture
- Industry and mining
- Tourism
- Construction
- Service trades (including export marketing)

Alternatively, functions could be performed for several sectors at once;

- Promotional activity (to "sell" Sinai as a location)
- Manpower recruitment and training
- Technical assistance (for instance, to improve production methods, engineering processes)
- Marketing assistance (surveys, agency arrangements, bulking, and transport facilities) with special emphasis on exports
- Site development (industrial estates, land reclamation, beach resort infrastructure)
- Provision/coordination of utilities (water, power, telecommunications, waste disposal, transport)
- Community services (residential, educational, health facilities for workers and families)
- Planning (to maximize backward, forward and horizontal linkages)
- Research and development (to share costs and risks of innovation)

Whether approached on the basis of sector programs or functional programs it appears that there would be possibilities of specialization of staff and economies of scale if these activities are approached, initially at least, on a peninsular basis rather than in separate governorates. So long as the regional program develops strong linkages at the subregional, zonal, governorate and markaz levels and so long as the administration is held to an equitable development of all subregions, it appears that the advantages of a peninsular approach would outweigh the risks, at least until the year 2000 or until the first one million residents settle permanently in Sinai.

4.4 MAJOR CONSTRUCTION

Although planning has been emphasized in this Report, inevitably since the focus is on the analysis of alternative paths to certain goals for the year 2000, development requires execution; and in the particular case of Sinai the Recommended Strategy calls for quick, skillful, cost-effective construction of many major structures. Perhaps the most dramatic of these, and certainly the most important from a developmental point of view (and also in terms of its burden on the budget), will be Nile water conveyances, estimated to require an investment equivalent to LE 2,235 million, mostly over a 10-year period beginning by 1986. This alone is an undertaking comparable to the recent enlargement of the Suez Canal, is more complex and will require a comparable capacity for construction design and supervision.

Nile water conveyances are singled out because of their size and importance. A similar point could be made about the construction of new settlements, although the bulk of the cost (for instance, housing) can be borne by the private sector. The settlements construction required in the public sector, however, is both more diverse, more scattered and more socially sensitive than pipeline/canal construction; it therefore represents at least an equal challenge from the management point of view.

Much other construction is contemplated. Some will be well-handled by specialist agencies at the national level--for instance, no special Sinai entity would be required, or even appropriate, to manage the recommended rapid expansion of telecommunications; ARETO can be expected to handle this without difficulty. Similarly, the Canal Electricity Distribution Company has already proven its ability to move quickly and efficiently to serve Sinai's needs. In arenas such as these, the Sinai management system, in addition to its planning and coordination functions, needs only an ability to supervise construction by specialized entities to ensure that what is planned or constructed is appropriate to the overall strategy for the peninsula.

The principal issue concerning the "major construction" function is whether or not it should be combined with planning and coordination. Other regional (and national) development administrators have found it essential that their "development planning" agency have authority to act as contractor of last resort--in other words, where no other agency exists (in the opinion of the "development administration" or its policy board) to do a certain task (because of its scope and/or complexity), the development planning agency is authorized to contract directly to have it done. The "planners" then are the principal judges of whether or not another ministry or organization should be commissioned to take construction responsibility; in projects of exceptional importance or great complexity compared to previous experience, the "planning" or development agency assumes construction responsibility itself rather than take the risks of uncontrollable delay which might result if the task is assigned to another less experienced organization.

Having "planners" take direct responsibility for major construction is thought to centralize experience and, therefore, to be more efficient than assigning major tasks to others. In all such cases the stated intention of planners is to divest themselves of construction functions as soon as sufficient construction (or construction supervision) experience can be built up elsewhere, for it seems to be widely acknowledged that, except for an initial break-in period, "planning" should keep its objectivity by maintaining some distance from the "execution" of public works and/or other basic programs. Where long-range planning and major construction responsibilities are combined in a single agency, an arms-length relationship is encouraged by having separate departments report to a President (or Executive Director) responsible, among other things, for reconciling their differences.

It follows that whatever construction responsibilities might be assigned to the proposed Sinai Regional Development Agency for its initial years - for example, to expedite the colossal task of completing conveyances for about 1,500 million cubic meters of Nile water a year to many points throughout Sinai, including some which are 200 kilometers or more from the Suez Canal - part of the overall management plan would be to divest the agency of most of its responsibility for construction within 10 to 15 years. In other words, while the first conveyances might be built by the SRDA, other agencies (including a once-again revamped SRDA or an independent subsidiary or spin-off entity) would be handling such construction by the middle 1990s. Even when assuming initial construction responsibility, the agency should have a plan for reassigning those tasks to others within a decade or so, and should be required to conduct this function in ways that facilitate the training of personnel in successor agencies.

It will be critical for the agency which manages construction to achieve firm control over the time schedule as well as the cost of construction. Time and cost are closely related to each other. In the nature of much construction, work-in-progress is an investment not yet earning a return. To the extent that the gap between inception and completion can be narrowed, real returns on investment increase. For many projects--roads, pipelines, groups of houses--the "unproductive" period can be shortened by planning to complete discrete, usable components of construction one at a time, so that they can be put immediately into service. In other words it is more useful to complete 10 houses in a project of 100 units than to complete 10 percent of all 100 units. It is better to complete the 10 kilometer road from village A to village B than to complete 10 percent of the foundation of the entire 100 kilometer alignment from village A to town C. Even when construction can be phased in this way to complete useful components quickly, one at a time, the careful scheduling and speeding up of construction will yield valuable returns to the economy as a whole. In the special circumstances of Sinai, serious consideration should be given to working intensively 16 or even 24 hours each day on any construction that is undertaken. Doing a few things at a time and doing them quickly will yield a better return on investment than the same monthly rate of spending spread out over a longer list of projects. A cardinal rule for the managers of construction in Sinai, be they directly responsible or merely monitoring the work of others, should be the management of time both to control overall cost and to deliver each usable component as quickly as possible.

Another rule which has proven its value in many rapidly developing regions is to give adequate attention to maintenance of structures already in place. Typically, in regions experiencing an initial spurt of growth like Sinai, there are few facilities to maintain; virtually all resources, both human and financial, are devoted to new construction or major reconstruction. Once the first few years of such construction have passed, facilities will have been created which require maintenance; ample budgets are suddenly required where there was hardly any allocation before. This phenomenon has particular relevance in Sinai, where roadways, for instance, suffer serious, occasional and unpredictable flood damage every few years, and where drifting sand may close another stretch of road with equal suddenness. Nile water conveyances, while designed to incorporate some

storage capacities en route, will become lifelines for almost all settlements in Sinai. While it is true that the bulk of the water is required for agricultural purposes, some will be used for daily household activities; moreover, few crops can tolerate lengthy interruptions in irrigation. Therefore, excellent maintenance of these vital conduits will be of critical importance to the prosperity of Sinai and its rapid growth toward year-2000 targets.

4.5 REVENUES AND FINANCING

The fifth and final major function of Sinai's development management system discussed in this chapter is revenue generation and financial management.

Given the size, temporary nature and urgency of the programs contemplated for Sinai, it is argued that normal governmental budgeting procedures are inappropriate. To put Sinai projects through the annual budget cycle is to risk misallocation and costly delay--not necessarily because of any fundamental weakness in the budgetary process but because of the very dynamic, some would say volatile, circumstances of Sinai. The uncertainties at any one moment are too great; the opportunities too urgent. It is suggested, therefore, that much of the public development investment contemplated for Sinai be financed from a fund, established for that purpose, managed more like an investment bank than like the Government's budget.

The Government (through its regular budget processes) would make bulk grants to the proposed Sinai Development Fund annually or biannually, within a framework established by the Five-Year Plan. Individual grants to specific projects--for example, pipelines, reclamation schemes, roadways, power systems--would be approved and released by the Fund as soon as requisite feasibility studies or contract negotiations are completed. Financing would be on a project-by-project basis; approvals would be as soon as necessary justification and implementation details were approved by the Board of the Fund; and disbursements would flow as needed to maintain the pace of construction or other implementation processes. Under these procedures projects would not be delayed by the annual budget cycle (or "approved" in incomplete form, simply because of the timetable for budgeting). More thorough technical review and/or assistance would be possible because project approvals would continue throughout the year, not simply as an undigestible group, during the "budgeting" season. The more successful projects could move ahead more quickly than originally scheduled and delayed projects would not bottle-up funds needed elsewhere. Trustees of the Fund could establish and enforce quality and unit-cost standards, conditions regarding staff qualifications and training, sales targets, and similar performance criteria.

To be fully effective the proposed Sinai Development Fund should have its own revenue base--for instance, a peninsular development fee, linked to Suez Canal revenues and/or government income from oil production. The revenue base could be substantially below what is actually needed to implement the approved development programs, and government would exercise overall control of the Fund through allocations, over and above the revenue base, to add to the resources of the Fund whatever additional amount is needed from year to year. More importantly, the Fund would have authority to borrow both within Egypt and internationally; such borrowings could be serviced from the regular

Table 4-2

Evaluation of Alternative Ways of Providing
Local Participation, Employment Generation,
Construction Management and Financing Functions
Required for Rapid Development in Sinai

Function	Alternative institutions					
	A	B	C	D	E	F
<u>Local participation</u>						
Policy decisions	++	+	-	+	-	+++
Project selection	+	+	-	+	+	++
Implementation work	+	-	-	-	+	+++
Development agency management staff	++	-	-	-	+	+++
<u>Employment generation</u>						
Rural development	++	-	-	-	-	+
Irrigated agriculture	-	-	+	-	++	++
National industry	-	+	+	-	-	++
Private industry	+	-	-	-	-	++
Tourism	++	-	+	-	+	++
Construction	+	-	-	-	+	++
Other	+	-	-	-	-	+
Promotional activity	-	-	-	-	-	++
Technical services	-	-	-	-	-	++
Economic analysis	-	-	-	+	-	++
<u>Construction management</u>						
Major projects	-	-	-	-	++	+++
Foster local contractors	+	-	-	-	+	++
Maintain new structures	+	-	-	-	-	+
Monitor autonomous agencies	-	+	+	+	-	++
Plan and build	-	-	-	-	+	+++
<u>Revenues and financing</u>						
Collect fees, taxes	-	-	+	-	-	++
Guaranteed revenue base	-	-	+	-	-	+++
Borrowing capability	-	-	+	-	-	++
Help finance production investment	-	-	-	-	-	++

- A The Governorates, strengthened with additional staff and technical assistance.
- B Frequent ad hoc consultations among the five Governors, concerned Ministers, heads of SCA, SDA, et al.
- C The national Cabinet Subcommittee constituted in April 1982.
- D Region Three Planning Unit of the Ministry of Planning.
- E Sinai Development Authority with some redefinition of functions and strengthening of staff.
- F Proposed New Sinai Regional Development Agency.

annual flow of revenues from the Fund's guaranteed sources. In short, the total pool of financing available for Sinai development through the Fund would be a combination of revenues from regular assured Sinai-related activities such as the Canal and the petroleum industry, topped up by additional annual allocations from "general revenues" in the national budget, both substantially supplemented by borrowings serviced from basic revenue streams and guaranteed by the full faith and credit of the Egyptian Nation.

The Fund would act as a wholesaler of finances needed for Sinai's development. For instance, it would approve periodic loans to an industrial development bank, a tourist development institution, or agricultural credit societies, which in turn would retail funds to specific industrial, hotel, farming or other enterprises and entrepreneurs. The Fund would assist in arranging financing for major industrial projects, such as the proposed petrochemical complex. The Fund could disburse directly for certain major infrastructure works (for example, Nile water conveyances) or simply assist in arranging finance for an autonomous water management agency. It might contribute at least part of the financing needed to implement special telecommunications or power system programs for Sinai, although these activities may be easy enough to handle, at least initially, through normal national investment programs.

The recommendation here is that a Sinai Development Fund be created with initial allocations from the national treasury, based partly on Suez Canal revenues and oil production. Over the next few years it should be a major objective of officials responsible for development in Sinai to find additional sources of financing to flow back into development of the peninsula--for instance, from the extraction of other minerals (where cost-price relationships permit such levies) or from any highly profitable export sales (including revenues from tourism). Similarly, over the next 10-15 years, it is possible that managers of the initial general Fund will find it convenient to spin off a few specialized financing institutions. For example, while loan or other financial assistance to major industrial projects might be negotiated initially with the general fund, this type of activity could become so common after the first decade that a specialized industrial investment fund or industrial estates corporation would be justified, operating more efficiently as a separate entity rather than a department or service within the more general Sinai Development Fund.

4.6 CONCLUSION

The Consultant recognizes that it is important to continue to strengthen local government institutions at the level of the governorate, the markaz and even the individual settlement. This process will be a vital element in the development strategy of the next 15-20 years. At the same time the Consultant sees an interim need for one or more peninsular institutions, which would operate from now until the late 1990s when normal local government institutions have achieved a scale consistent with a population of about one million. These institutions will cater to the special needs arising from the national determination to develop Sinai rapidly and to establish a dispersed pattern of permanent settlements throughout the region.

Special development management institutions would be mainly concerned with:

- Planning and coordination
- Ensuring local participation in development decisions
- Generating production and employment
- Expeditious execution of an ambitious construction program while maintaining tight cost controls
- Mobilizing and providing responsible trusteeship for finances needed to implement a program estimated to require LE 11,268 million in public and private sector financing over a period of two decades.

While some of these major functions can be combined efficiently within a single institution (for example, regionwide planning could be combined with supervision of major infrastructure construction) at least during the 10-15 year transitional period, others might best be administered separately (for instance, the Sinai Development Fund could be managed by an organization separate from the one responsible for construction of major public works), although closely coordinated through largely overlapping policy boards. (To illustrate this last point, the Ministers of Development and Economy would be represented on the Boards of the Fund and the Regional Development Agency, but the Minister of Development might be Chairman of the Agency, while the Minister of Economy would be more likely to chair the Fund.) Figure 4.2 illustrates the proposed lines of responsibility for establishment, policy direction and management of a Sinai Regional Development Agency.

Building on the internal memorandum of November 1981, cited earlier, the Consultant noted general consensus on the following purposes and functions proposed for a regional development Agency:

- To provide single-agency control of regional planning, project implementation, and flow of public expenditures.
- To implement the Government's commitment to decentralization and strengthening of local governorates' capacity to execute development programs in Sinai.
- To provide well-constructed plans for Sinai, including coordinated schedules for implementing projects in logical sequence at costs which are competently estimated.
- To estimate proposed budgets to the National Cabinet, which can be expediently approved by virtue of competent planning and analysis visible in the budget request documents.
- Directly to administer and oversee expenditures of public funds committed to Sinai projects and to local government and social service activities (with authorization to adjust schedules and to reapportion funds, within certain policy guidelines, when in

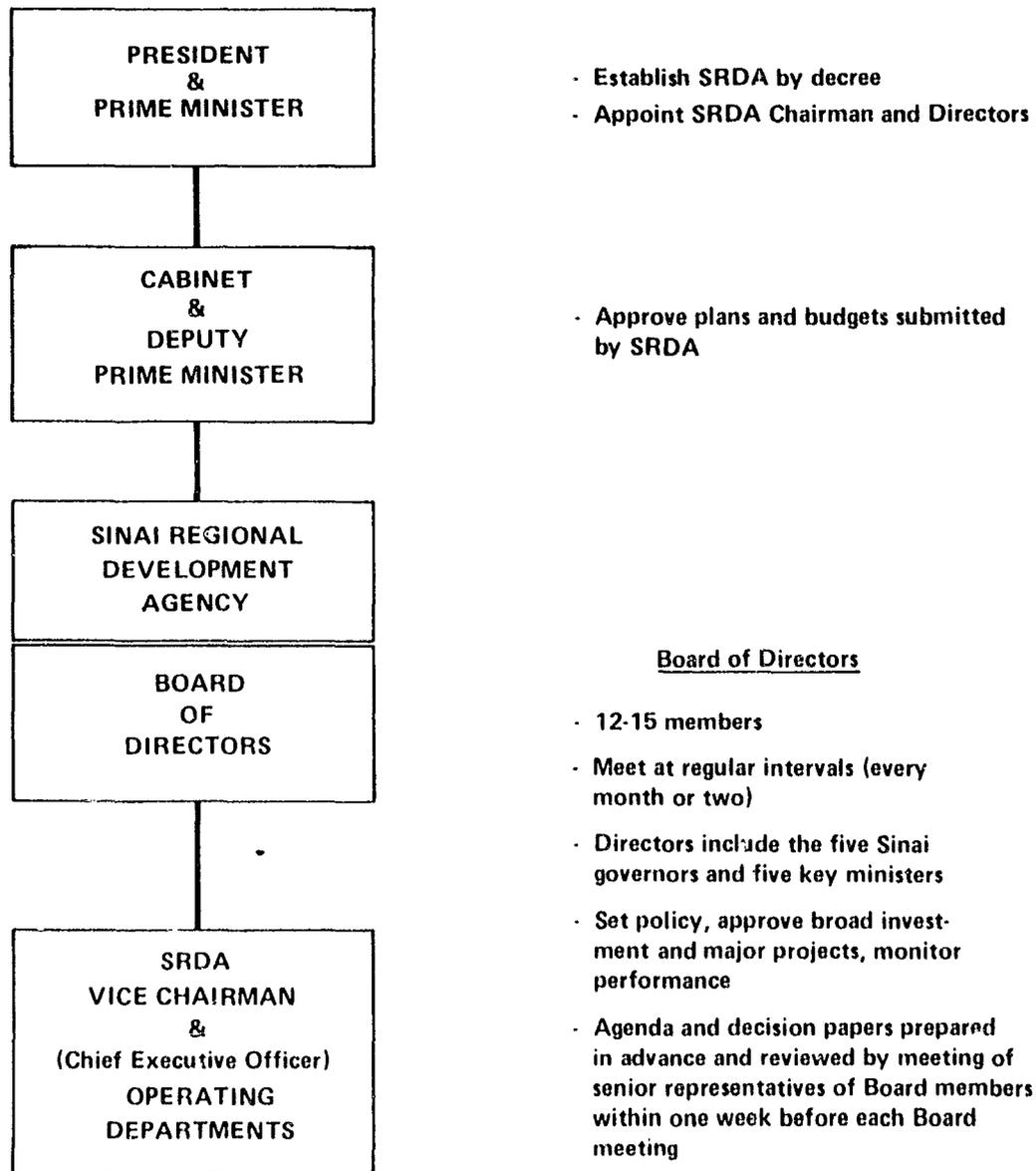


FIGURE 4.2
PROPOSED LINES OF RESPONSIBILITY FOR PLANNING AND BUDGETING
WITHIN A SINAI REGIONAL DEVELOPMENT AGENCY

the view of the management of the Agency it would be to the over-all benefit of Sinai to do so). A conceptual design for budget planning and administration is given in Figure 4.3.

- To organize itself for necessary control of its planning and administrative functions and to assist the local governorates in developing institutional competence to plan, analyze, propose and implement programs and projects in their respective areas.

Summarizing on December 15, 1981, the Consultant wrote to the Chairman of the Advisory Committee for Reconstruction (Ministry of Development):

"There appears to be a broad consensus that economic development in Sinai and its full integration with the national economy is a task requiring new, imaginative, and effective administrative structures. It is also generally agreed that this task will require the ability to develop and to evaluate a wide range of development proposals, the authority to coordinate schedules for implementation of many different but complementary projects, significant streamlining of normal budgetary controls and financial procedures, and decentralized authority that responds promptly to local needs within national guidelines...

"There also appears to be widespread agreement that existing arrangements to plan and implement Sinai's development need to be strengthened by an organization that has greater manpower and financing resources as well as substantial autonomy, and that such action would be consistent with national policies that encourage decentralized planning and implementation. It is also agreed that within five or ten years Governorates and other regular agencies of Government in Sinai should have the authority, staff, financing, and other resources necessary to maintain and accelerate the pace of social and economic development. Under most recommended scenarios, the Governorate offices would be substantially strengthened.

"The Sinai Regional Development Authority (SRDA) is proposed as a means of bridging the gap between what needs to be done now (partly to make up for nearly 15 years when Sinai was separated from the rest of the Egyptian economy) and the projected situation a decade from now, when regular institutions in the Governorates will be equipped to carry the full load. In addition to the points made in your letter of November 14, we believe that such an administration or authority will have the greatest chance of success if the following conditions are met:

- a) - The five Sinai Governors should have a significant role both in determining policies and in administering programs of SRDA....
- b) - Some substantial source of revenue must be ensured for a period of several years. The amount should be sufficient to cover a major portion of the proposed public investment programs (and possibly some initial operation and maintenance expenses as well), but leave room for substantial 'topping up' from other budget and loan sources as an incentive to the authority to prepare strong projects and to implement them expeditiously.....

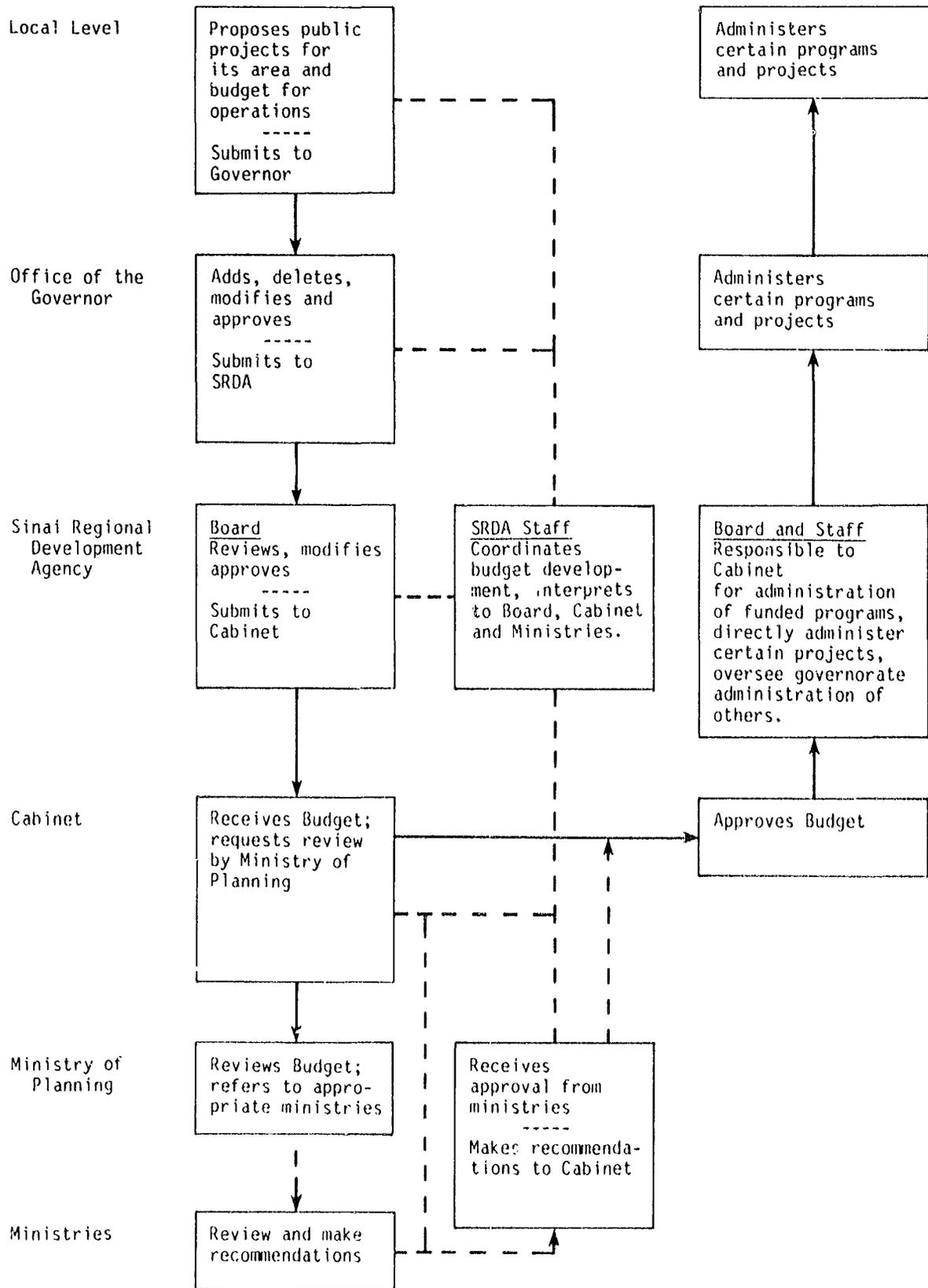


FIGURE 4.3

CONCEPTUAL DESIGN FOR BUDGET PLANNING AND ADMINISTRATION

c) - A primary focus of SRDA activity must be to encourage private investment in Sinai, both domestic and foreign. If the climate for investment is good, if infrastructure is created in support of private ventures in industry, tourism, mining, construction, commerce, and agriculture, then both small and large entrepreneurs can be expected to create jobs which will act as an incentive to new settlers and also enhance the lives of current residents. To be successful, the SRDA must see its role as largely promotional and catalytic as well as being an efficient supplier of public construction and, at least temporarily, other government services.

"In our study of this question, the Study Team was told that recent administrative arrangements are like a balloon that is fully inflated. If you were to blow more air into it, the balloon would burst. A new balloon is needed.....

"As you stated during the Steering Committee meeting earlier this month, recommendations regarding Sinai must be consistent with national policies governing decentralization, reflected in recent legislation. With decentralization trends in mind, we recommend that one function of the proposed SRDA be to act as the technical secretariat for a regional deliberative council. In this way, carefully prepared, technically sound, economically viable projects would be presented for review and debate by a representative forum. This would increase public awareness of development plans and prospects, thus adding a sense of local 'ownership' of the new society already being built in Sinai."

Reviewing the situation 18 months later, the Consultant found no weakening of that consensus nor any reason to change major elements of the framework already under discussion at the end of 1981 as a basis for the Government's decision regarding new institutional arrangements to execute a dynamic development strategy in Sinai. All persons with whom the Consultant discussed these issues seem to agree that the management of development in Sinai will require:

- A special authority or agency both to expedite action and to minimize intersectoral, subregional inconsistencies, either of substance or of timing.
- Reliable, uninterrupted funding.
- Some combination of planning and implementation responsibilities in one agency.

- A comparatively small organization with a limited life span of 12-18 years.
- Close cooperation between the special interim Agency and the governorates, with the former gradually turning over its functions to permanent governorate staff and to specialized institutions dealing with subjects such as long-term credit for productive activities, tourist promotion, training in new skills, or research and development studies, to cite only a few examples. Figure 4.4 provides a sketch of one possible form of organization, by function, of the proposed Sinai Regional Development Agency.

Disagreements, to the extent that they exist, concern details of control, organization and staffing--important details, to be sure--which can be sorted out only after the Government decides to create the Agency and appoints a specific Task Force to bring forth a practical proposal for doing so. The more important questions to be resolved concern:

- Composition of the Policy Board: Should it be primarily a board of national ministers or should the five Sinai governors also be represented? Most experts associated with the Study Team favored a Board consisting of the five governors (to ensure a strong "local" voice and close coordination with governorate staff and activities), four or five National Ministers (Development, Economy, Defense, Irrigation, and Petroleum were frequently mentioned), and two or three persons of very senior rank with a special interest in Sinai (Chairman of the Suez Canal Authority, President of the Suez Canal University, Chairman of the Planning Committee for Region Three). Other experts feel that the Governors should be part of a larger panel of technical specialists with only an advisory relationship to the Agency administration or board.
- Frequency of Board Meetings: An annual meeting was suggested by the MOD discussion paper; others believe that the pace of development in Sinai and the need for the broadest possible support mean that a minimum of four or five well-prepared board meetings will be necessary each year.

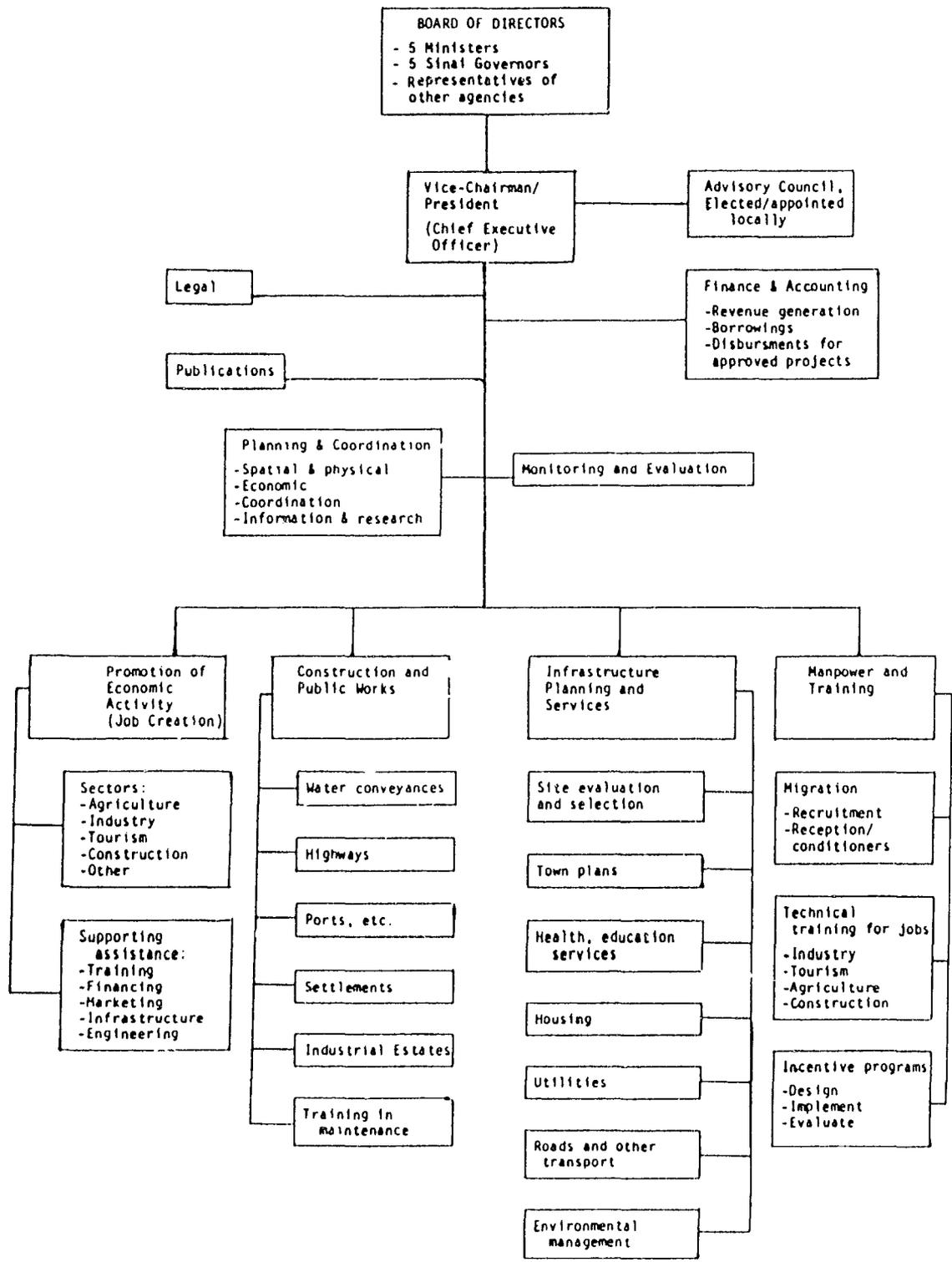


FIGURE 4.4
 SKETCH OF POSSIBLE ORGANIZATION, BY FUNCTION, OF THE
 SINAI REGIONAL DEVELOPMENT AGENCY

- Appointment of the Agency Administrator: Some see this position as a Presidential appointment with the rank of Minister; others recommend that the Board (or its Chairman) should have the power to appoint (and dismiss) the Administrator.
- Resources: Many believe that the key to success of the Agency will be control over sufficient (say LE 500 million annually) financial and commensurate human resources; others see the Agency as primarily a plans-and-studies group, following routine ARE budget processes.
- Governorate or Regional Planning Committee "Powers": Some experts recommend that the Agency be given in practice the same powers as governorates and regional planning committees have in principle, at least as concerns the management of public utilities, expropriation of lands required for plan purposes, taxation, contact with investors and international lending institutions, the determination of sites and limits of free zones, contracts with consultants, setting salaries and the other compensation of employees, and experimentation with new techniques of financing and administration. There is discussion of whether governorates would also continue to exercise those same powers or be superseded for certain purposes during the limited lifetime of the Agency.
- Initial Staffing: One practical way to establish the proposed Regional Development Agency would be to reconstitute the existing Sinai Development Authority, giving it broader authority, new functions, additional staff (especially in the planning arena) and more autonomy. Others argue that an entirely new Agency is required, perhaps drawing on the staff of SDA, governorate and other organizations familiar with Sinai for key initial appointments, but leaving the Administrator/President/Minister responsible for SRDA entirely free to select his own team.

Most of these issues need to be resolved at the highest levels of government. Some strengthening of policy planning and development management arrangements for Sinai are needed and widely expected. It would appear that the time has now come to "bite the bullet" and to re-define the power, resources and authority of the SDA, so that it becomes a specialized Agency, headed by a Minister of State with broad powers and adequate resources to define, plan and execute sound comprehensive strategies for the development of Sinai. One possible configuration for the Agency is shown in Figure 4.5 ; it may require two or three years to staff up for all the functions shown.

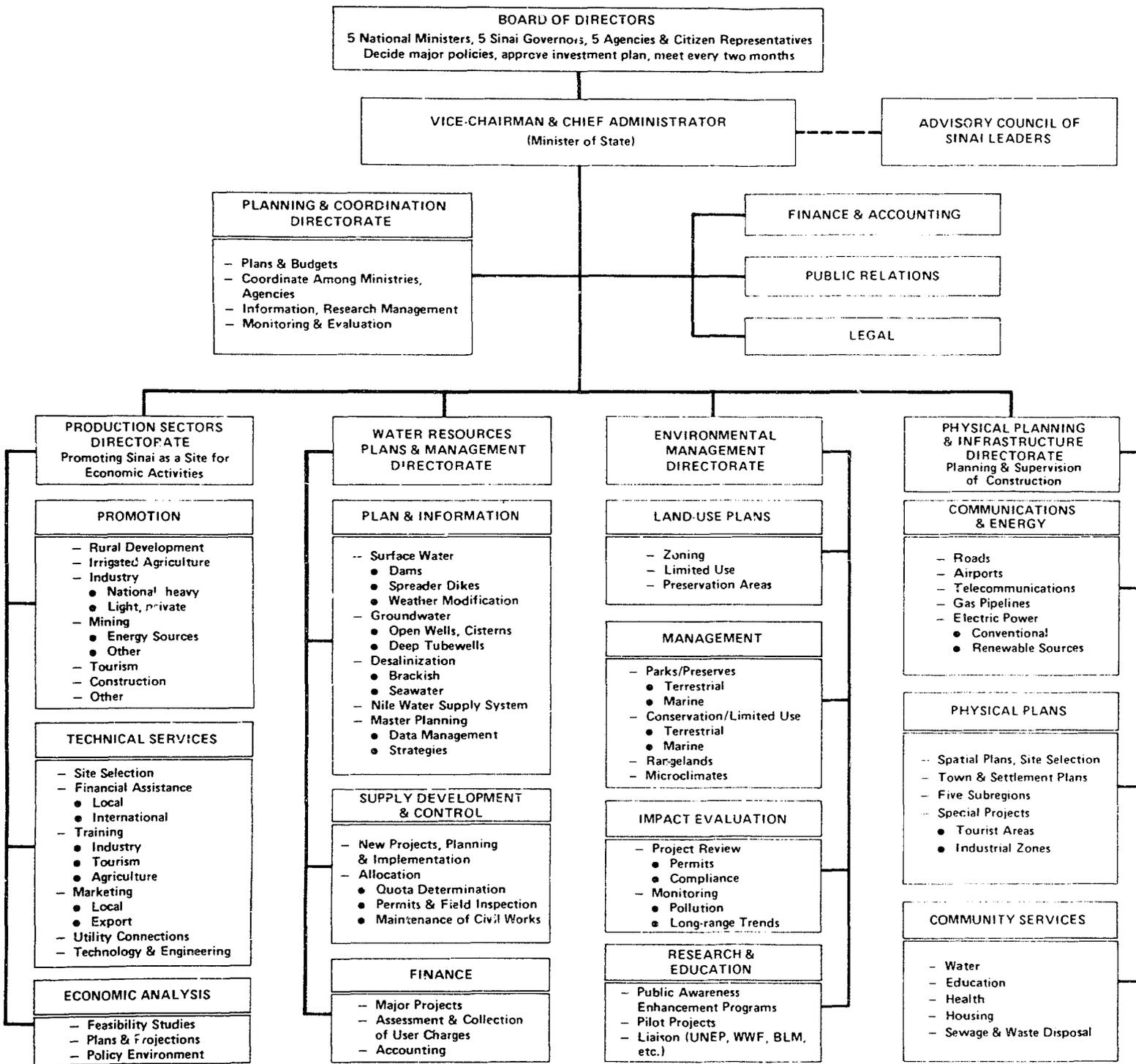


FIGURE 4.5
ORGANIZATIONAL SKETCH
OF A LARGE MULTIFUNCTION
SINAI REGIONAL DEVELOPMENT AG

5.0 SPECIAL ISSUES OF DEVELOPMENT MANAGEMENT

Because of special conditions in Sinai and the fact that major new development programs are being launched, several areas of management deserve urgent attention--namely, the management of:

- Water
- Environment
- Information and Research
- Manpower

For each of these areas of concern the question will arise: Should a separate organization be created or assigned responsibility for the family of tasks involved? Or, because of the critical importance of the subject matter, would it be best to manage it, at least for the next decade or so, as a major autonomous function within the framework of a larger regional development agency, which itself combines broad planning authority with the necessary power to execute plans ("which fuses thought and action in one body")?

Given the importance of these activities for the success of development in Sinai, given the efficiency in the use of resources which can result from proper coordination, and given the scarcity of managerial personnel currently available for such overall management tasks, it is likely that these special concerns will be handled most expeditiously within the framework of a single agency, at least for the medium term (covering the next 10-15 years). In order to clarify the functions involved, the following sections describe them one at a time. However, readers should bear two caveats in mind:

- The Government will soon determine the organizational form and locus for performing each of these functions, be it through a special organization or as part of a larger unit, and
- Whatever organization is chosen to handle the responsibility in the next 10-15 years, new decisions are likely to be required in the 1990s.

A decade or so from today, it is entirely possible that government will decide to spin-off a special function that is at first going to be handled within the framework of a large, multifunctional agency. Subjects which are initially the responsibility of a large comprehensive agency may later be reassigned to an autonomous organization or decentralized to the governorate or other local level. Conversely, functions assigned to separate organizations at this stage in Sinai's development may have to be combined and consolidated with other functions, as may be considered more appropriate on the basis of conditions at that future point in time. In short, whatever configuration of development management is chosen for Sinai at this time, it will require review and probably revision to deal with radically transformed conditions 10-15 years from today. Decisions taken in the next few months will be based on the intention that they be made to work for 10-15 years and on the expectation that they will then be reviewed and, if necessary, revised.

5.1 WATER MANAGEMENT

There is no way to exaggerate the importance of water management to the future of Sinai. By any reasonable definition the peninsula is arid, except for a small semi-arid corner in the northeast. Imports account for more than half the water now used by a relatively small population. The development of the peninsula, especially a development envisioning a six-fold increase in population and a large amount of irrigated agriculture, depends on:

- Careful control and use of sparse rainfall,
- Tapping deep and still unexplored aquifers of "historic" water,
- Pioneering use of desalinization techniques, and above all
- Transferring substantial amounts of water from the Nile (and Nile drains), thus symbolizing Sinai's close integration with the rest of Egypt and making possible a reasonably full exploitation of the other resources in the region.

Although water is the critical resource missing at this time, it is of no great value by itself. Water needs soil, industrial activities, and people to be of significant productive or economic value. Thus, planning for Sinai is largely a question of unlocking the potential of other resources by bringing water to them; or, one could say, exploiting the potential of water more fully by delivering it to places and activities where it can be used productively. These resources/uses and water need each other; they are equally dependent on each other. Water is the key to jobs, settlement, agricultural development, and industrial promotion.

It follows that whoever has the authority to manage water in Sinai will be in a powerful position to manage the pace, spatial distribution and economic character of development on the peninsula. There are more than a few regions in the world whose physical development plans are, to a large extent, the responsibility of water authorities (Los Angeles and the Washington, D.C. metropolitan areas being two American examples that come easily to mind). This is also an option for Sinai. Two possibilities follow from this fundamental condition:

- Either the water management organization must have its own broad planning competence, designing water delivery systems in terms of its own judgements about agricultural, industrial, and tourist potentials and its own concepts of the best spatial distribution of settlements; and also engaging in its own promotional and educational activities to ensure efficient use of the water it is providing.
- Or the economic and physical planning authorities must have the full cooperation of, and reasonable control over, water managers, in order to enforce and implement their decisions regarding Sinai's socio-economic and physical-spatial future.

There is no way to separate water management and overall planning in Sinai. It will be essential for government to decide how this interface between water plans and more general plans can best be organized.

If a Sinai Regional Development Agency is to be created along the lines of the "discussion paper" of November 1981, it will either have to incorporate water planning and management functions or be given strong powers to control which water projects are implemented, and when.

If an independent water authority is created (an idea explored in Chapter 5 of Volume V), then, sooner or later, it will need to acquire the capacity to prepare and evaluate fairly comprehensive plans for major uses of water in each subregion of the peninsula.

There are jurisdictions (Puerto Rico, for example) where water planning is done in a separate agency from general economic and physical planning. But that arrangement works efficiently only when there is very close cooperation between the two bodies, usually including overlapping policy boards, and some active and effective higher authority to whom both organizations report frequently.

Separate skills and staff teams are needed, no doubt; but close coordination is also essential. Water planners must, in the end, convince themselves that they are being asked to deliver water where it will be well used, fully used, not required in amounts greatly in excess of supply, and generally bring in a "good return" - at least in an economic sense (sufficient to justify continued government subsidies) if not in a direct financial sense (which would also have a useful disciplinary effect on the managers of the water authority). Equally, general planners require reasonable assurances that water will be delivered as needed and without costly interruptions. Water plans determine the success of other plans; other plans determine the demand for (and value of) water delivered to particular places.

Historically in Egypt, agricultural water is preeminently a central government responsibility, handled with great ability and sophistication by the Ministry of Irrigation. Governorates generally do not have representatives of the Ministry of Irrigation sitting on the executive council of the governorate along with representatives of service ministers. The management of water plans for Sinai represents an unprecedented challenge. Some form of organization is needed which puts the regional or peninsular interest at the center of its responsibilities, making good use of whatever allocation of Nile water is granted to Sinai by the National government and also exploiting aggressively all supplementary possibilities - groundwater, storage dams, spreader systems, desalinization and various other sources, both traditional and innovative, which will themselves be influenced in various ways by the importation of Nile water.

It would seem prudent to draw upon the experience and wisdom of the Ministry of Irrigation in establishing the water management organization for Sinai; equally, it would seem wise to insist upon a separate regional entity, so that the very real challenges of Sinai are not lost in the very heavy all-consuming tasks of Nilotic Egypt, itself expected to undergo a major transformation in water management during the remaining years of this century.

Section 5.3.1 of Volume V lists the primary functions of a Sinai water authority (which we interpret here more generally as the Sinai water management system):

- Monitoring and information collection and processing
- Establishment and management of water allocations
- Planning, and possibly implementation, of new water-development projects
- Maintenance of water-supply civil works
- Enforcement of a system of incentives and/or sanctions
- Education in good water management techniques

While the monitoring and information processing function in the water arena requires some special skills, it is also clear that all information regarding water has important implications for other aspects of planning in Sinai. This function, then, is one which it would be well to coordinate with the more general information-gathering functions of an overall Sinai development agency. Water allocations, as noted earlier, are central to the overall planning process; this function, then, supports the case for integrating water management with more general development management functions, or alternatively, very close coordination between agencies.

The next two functions (construction project planning/implementation, and maintenance of civil works) might well be integrated with larger responsibilities for construction planning and management and for the maintenance of physical structures (for example, roads and settlement infrastructure) which complement the water conveyance system in the physical transformation of Sinai. Again the case for a more comprehensive organization - or very close coordination of staff and functions - is clear.

The final two functions (incentives for good/productive water use or sanctions to enforce conservation, and education in good water practices) are important for the water sector alone but can also be easily combined with a wider range of regulations and incentives (required to encourage rapid development) and education (to promote quick and widespread adoption of new opportunities).

Given this broad range of common concerns and the central role of water planning in the Recommended Strategy, it is not surprising that the policy board recommended for the water sector would consist of the five governors, the head of any overall Sinai development agency, and the Chairman of the Suez Canal Authority along with the Minister of Irrigation, whose organization, as mentioned earlier, brings skill and experience to all aspects of water management. The overlap with various proposals for the Board of more general planning and development agencies is not accidental, given the critical role water management plays in all aspects of Sinai's life and plans.

5.2 ENVIRONMENTAL PROTECTION AND ENHANCEMENT

"Desertification" is a term frequently used to describe the deterioration of vegetation in Sinai during the last two or three generations. Coral formations, unique in this hemisphere, were until recently threatened by certain fishing practices and are now threatened further by tourist practices. The natural and cultural resources of Sinai provide a strong base for rapid growth in income and jobs from the tourism sector. Development in Sinai can be viewed in part as a process of environmental enhancement; the Recommended Strategy calls for the "greening" of Sinai, partly by supplementing local water supplies with substantial imports from the Nile. Paradoxically, the Strategy, by increasing the population sixfold, may also threaten the environment in ways that cannot be foreseen. It is recommended that the rapid transformation of social and economic life be accompanied by careful monitoring of environmental changes. Large transfers of Nile water, while expected to have a strongly positive effect on balance, may also involve negative side effects, which require careful management.

In chapter 5 of Volume IV of this Report, The Land and the Environment of Sinai, several aspects of environmental management are discussed:

- Systematic assessment and handling of environmental impacts of specific development programs and projects
- Methods of resolving potential conflicts among proposed land uses-- for instance, among several proposed development activities within spatial clusters of resources, particularly along the northern and western coasts; between proposals for conservation and plans for development; and between traditional pastoralism and the expansion of more intensive, settled agriculture
- Steps to protect and administer areas set aside for the preservation of ecosystems, species and/or cultural sites or reserved for only limited access by tourists, livestock herders, and similar conservationist-users
- Procedure for monitoring environmental changes and reporting such changes to officials with sufficient authority to enforce any necessary remedial measures

These tasks can be accomplished within the framework of a larger development agency, given proper policy guidance regarding the way in which government wishes that agency to balance development demands and environmental limitations; they could also be assigned to a separate agency, which would be charged with providing an environmental check to the transforming zeal of developers.

Given the need for specialist staff and the desirability of having environmental considerations represented powerfully in the day-to-day deliberations regarding development projects, it is this Consultant's view that a strong environmental office within a Sinai Regional Development Agency offers the most practical way to perform these functions effectively in the next decade or so. In this way monitoring and other data gathering can be combined with other information management tasks, natural beauty and cultural assets are seen as part of the resource base to be preserved, not mined, in the development process, and potentially negative impacts can be identified and dealt with early in the feasibility analysis

and planning of particular projects. On this basis the Government will give the agency responsibility for planning and implementing an environmentally enlightened and balanced program.

5.3 INFORMATION MANAGEMENT

A central purpose of the Sinai Development Study - Phase I is to establish an information management system which will bring together all relevant data on the physical, social and economic features of Sinai and thus provide a reasonably factual basis for comprehensive perspective planning, including the evaluation of possible alternative strategies. Limited progress toward this objective has been achieved during the course of the Study. For the next important step to be taken a central requirement is the designation by Government of a permanent agency to house and to manage the information system and its data base.

Throughout this Report, and to a greater extent in Working Papers and information files prepared during the first 18 months of the Study, a large amount of data is made available on geological, hydrological, social, economic, ecological and other subject matter. Moreover, many sources available before the Study began in 1980 have been evaluated or verified and several studies to fill important gaps in the information base are recommended. A permanent administrative home is needed for these preliminary building blocks of the proposed Sinai Information Facility.

A review of required information services suggests the following list of most frequently mentioned features as having high priority:

- Data on natural phenomena: Much research is recommended to expand the coverage of these data, since present information is very limited. To give but three examples--a greatly expanded automated meteorological network was proposed for Sinai by the Egyptian Meteorological Organization and endorsed by the Consultant; a comprehensive and systematic survey of minerals potential was also recommended by the Consultant; after the MOD prepared a detailed plan for exploratory well-drilling, the Ministry of Irrigation initiated this research with financial assistance from the European Economic Community.
- Projects information: Descriptions of project ideas, their importance to an overall strategy of development, their readiness for implementation (or state of completion, if already under implementation), policy issues, recommended next steps, expected environmental impacts and similar information in summary form are needed by development managers, local government officials, investors, planners, market researchers and many others interested in Sinai.

- Geocoding: Spatial referencing, initially to subregions or zones within subregions, eventually to all settlements and specific map coordinates, will facilitate the analysis of local clusters, linkages, potential conflicts and land-use priorities. A preliminary geocode is set out in Volume VII.
- Monitoring: Because of the rapid pace of development in Sinai, the wide variety of projects being undertaken by many different organizations, development managers require some reliable means to monitor factors as varied as manpower, groundwater, climate, housing, transport facilities and services, health, tourist visits, exports, telephone calls, vegetation, land values and electricity consumption.
- Data book: A single, commonly available, reference data book, to be used by development managers and planners, would begin to minimize uncertainty and confusion about basic facts. A step toward such a reference work is offered as Volume VII of this Report. Given the planned improvement in telecommunications services in Sinai and the rapid recent development of micro computer technology, it seems probable that, by the late 1980s, the Data Book can take the form of computerized files, which could be accessed by micro computers in development planning and management offices in each Sinai subregion and Governorate as well as in the Ministry of Development and other concerned offices in Cairo. Such computerized files could be brought up-to-date more promptly than annual printings of a Data Book and with more certainty than is possible by distribution of revised pages of a loose-leaf data system.

The information management function recommended here is pro-active in spirit, empowered to identify and take steps to fill important gaps in information required for intelligent planning and analysis. In this sense the true manager of the information function is a director of research concerning Sinai. Within his or her responsibility will be those who "manage" data files and the entire information collection-validation-storage-retrieval-revision system; the more dynamic dimension of this function is the planning-commissioning-supervision-coordination-and-evaluation of research. Sinai has long been "in fashion" as the subject for research, both scholarly and practical, and probably never more so than in the past decade. Unfortunately, there is no central clearing house for such research nor even a single collection point. Thus, officials concerned with managing development complain that:

- Conclusions of different "research" studies reaching their desks contradict each other, and there is no mechanism for bringing experts together to reconcile their views;
- Much "research" duplicates previous work instead of having studies build on each other; and
- Priorities are unclear; it appears that some questions of no great importance are well studied while other urgent subjects are neglected.

Because of the feeling that recent research expenditures have not yielded as much value as they could have, at least one Governor has asked that the National Academy of Science nominate a Research Advisor, who would serve on the governorate staff, keep track of all relevant studies, advise on priorities for new research, and reconcile conflicts in reports from different sources.

It appears that in the arena of research and information management there is again a case for a peninsular institution, taking advantage of opportunities for specialization and economies of scale that would not be possible governorate-by-governorate, and covering subjects of both regional and local significance. As with other functions examined in this chapter, the regional authority would benefit from local counterparts and representatives at governorate and even the markaz level. But the program required is regional in its implications and scale. It includes:

- Management of existing information
- Making the data base more reliable
- Initiating research to develop new information
- Use of frequent sample surveys to keep track of socio-economic and other developments
- Monitoring of performance against specific production targets and also against broad strategic objectives
- Dissemination of relevant accurate information to as wide an audience as has use for the information in question
- Creating a network of specialized institutions doing research in topics of special interest to Sinai (for example, desert agriculture, solar power, marine ecology, salt-tolerant plants, groundwater systems, range management, erosion control, watershed management, aquaculture, agroforestry, sand dune stabilization, cloud seeding, and microclimatology).

In recent years the National Academy for Scientific Research and Technology established a Sinai research facility in Ismailia, which is intended to provide most of these services.

5.4 MANPOWER

The fourth cluster of concerns considered in this chapter consists of a variety of manpower recruitment and training issues. Since one major objective of development in Sinai is to absorb population from overcrowded regions, manpower concerns are pervasive, affecting most other programs. Every project will be examined for feasibility from a "manpower" point of view: Does it provide incentives sufficient to draw people of requisite skill and ability? What training is necessary to prepare for the special demands of Sinai? Can the need for temporary manpower--in a construction project, for instance--be converted into a steady job in circumstances that would encourage a worker to bring his family and settle permanently?

Once again we find this family of concerns:

- Runs like a thread through all aspects of planning for Sinai.
- Requires local (markaz or lower level) representation and manifestations of peninsular programs--for example, in programs of recruitment and training.
- Applies flexibility to a diversity of circumstances; that is to say, recruitment of settlers from among skilled Egyptians working overseas requires an approach different from the recruitment of ex-servicemen who experienced a 3-6 month tour of duty in Sinai, and training for work in a "footloose" apparel factory requires a different approach from training in drip-irrigation technology.
- Benefits from repeated interventions. The orientation given to new settlers is different from the social service assistance that will be necessary if family crises emerge, which are aggravated by the distance from a town of origin in Nilotic Egypt. Farmers practicing drip-irrigation will benefit from continuous extension services that teach equipment maintenance techniques, new cropping patterns, better fertilizer usage and unforeseen market opportunities.

Recruitment of settlers from specifically identified "source" areas and serviced by recruitment centers in "source" governorates and reception centers in Sinai are topics discussed in Volume VI. Here it remains only to suggest that this complex program not only needs a regional focus, which is to say planning, coordination and monitoring by a regional (development) agency, but also requires implementation locally at markazs (or even towns) of origin and destination.

There is a special problem in recruiting essential government personnel and key professionals in fields like research, who tend to be very urban, even primate city, in their orientation. Since government must play a catalytic role in the development process, it will be important to devise a package of recruitment incentives that is powerfully effective. Moreover, in the special case of Sinai the intention is to recruit not just the government official but also his family; the purpose is not just to get a job done but to build a new community. Some elements to be considered for the incentives package are:

- Income, including bonuses, which is not just higher than salaries for similar work in Cairo and not just higher than for similar work in other "hardship" assignments within Egypt, but so much higher that it compensates for supplementary income-earning opportunities in Cairo and for proximity to family, friends and business associates, bonuses which might emphasize home ownership.
- A substantial (50-100 percent) bonus could be paid upon completion of two or three or five years of satisfactory service in Sinai. (Such occasional bonuses, so common in the Japanese system of remuneration, also contribute helpfully to raising a country's or region's propensity to save.)

- A substantial bonus (again 50-100 percent) could be paid to civil servants who take their families to Sinai for a 3-5 year tour of duty.
- Interesting, remunerative employment should be guaranteed to spouses joining government workers in Sinai.
- The sense of building a new society as well as enjoyment of a comfortable lifestyle will be important recruitment aids.
- Successful 3-5 years service in Sinai should be worth far more when promotions are considered than the same period of service in Cairo (and most other locations in Nilotic Egypt).
- Government could select its most promising new recruits each year and offer them the chance to serve in Sinai for their initial 2-3 years of government service, with the understanding that such service is the principal means of entry into elite ranks later in one's government career. The French Treasury cadre is an example to be emulated in this regard; other examples are clerkship with a Supreme Court Justice in the United States; the World Bank's Young Professionals program; and the industrial promotion officers of the Economic Development Administration during its most successful period in Puerto Rico. The object would be to provide major development programs, at peninsular, governorate, markaz, and enterprise levels with very bright, very competitive, very well-trained, very energetic young technicians and managers and to give those recent graduates not only an esprit de corps but also an opportunity to apply their talents and energies in programs that encourage innovation, move quickly, and result in dramatic changes. A few dozen such recruits each year can have a dramatic, positive effect on the effectiveness of regional development programs proposed for Sinai.

The more general training requirement in Sinai will be for specific employment in new agricultural, industrial, mining and touristic enterprises. Based on experience elsewhere, the pattern that seems most likely to succeed involves a combination of:

- Technical or vocational institutions offering general preparation, and
- Government support (subsidy or training allowances) for the first months of on-the-job training in enterprises offering permanent employment.

The principal job of the regional development agency (retailing such programs through governorates and markaz offices, as demand expands) will be to initiate and monitor training schemes, leaving as much detailed implementation as possible to specialized institutions and the productive enterprises themselves.

Research will be helpful to forecast specific future skill requirements as one guide to planning manpower recruitment and training programs. It is recommended, as soon as Government decides the overall strategy and investment budget for Sinai, that a study be commissioned (presumably within the agency responsible for peninsular planning and coordination) which will

convert investment plans into specific estimates of personnel and skill requirements. To support these manpower plans, feasibility studies should also give careful attention to manpower/skill requirements at both construction and operation stages of particular projects. In this way realistic schedules of administrative, technical and managerial personnel requirements can be prepared.

When converting manpower estimates into specific recruitment and training requirements, it will be prudent to allow amply for "leakage" -- in other words to recruit or train a substantially higher number of persons than is foreseen as needed. Given the dynamic growth projected for Sinai, it is likely that some persons trained for one job or enterprise will be bid away by others; given the remoteness or "hardship" of pioneer life in Sinai, at least during the next decade, it is realistic to expect some settlers to give up and return to a more familiar ambiance; and given the need for a high standard of productivity, it will be useful to plan for competitors among graduates and to instill a sense that only good performance can guarantee continued employment.

Unlike manpower planning and training in other situations those responsible for these studies in Sinai will keep in mind the objective of permanent settlement and rapid population absorption. The manpower development required in Sinai is not merely to provide the skills required by particular tasks and enterprises but also to provide men, women and families who will settle permanently in Sinai. This dimension of the training program may require a different design from simpler programs dealing with overall national or simple sector requirements.

At first blush the integration of Bedouin people with settlers from Nilotic Egypt seems a very different subject from other aspects of manpower planning and management, except that it also affects every subregion and most development programs. However, here again, the issues of training and incentives emerge. The natural and recommended approach will be to give "first refusal" to local people as new jobs are created and to seek ways to provide specialized training that are not financially burdensome to the enterprise or project. In other words government funding and training services can be made available to assist local Sinaians to qualify for new jobs resulting from the development strategy, wherever local residents wish to so qualify. Local recruitment will be much more convenient and economical than resettling workers from Nilotic Egypt. As development proceeds, however, it is expected that employment opportunities will far exceed the number of local people available to the labor force, so recruitment and resettlement of Nilotic Egyptians will be by far the most common pattern in the 1990s.

Most manpower issues boil down to a question of incentives. Finding an effective package of incentives is the key to development in Sinai and to creation of a community of one million residents by the year 2000. Incentives are unlikely to be effective if offered one at a time or one-dimensionally. Those responsible for management of development in Sinai can be expected to go through a considerable period of experimentation before they find the right gestalt or combination. Income will be important; those who settle permanently in Sinai will expect to earn more than the current average income in Egypt; jobs created in Sinai, whether from intensive, irrigated, export-oriented agriculture, or from industry, tourism and construction, will be jobs that pay more than the average pay of jobs in Nilotic Egypt. This is not to say that they will pay more than the same industry elsewhere in Egypt but only that industries and

other economic activities to be promoted in Sinai must be relatively high-paying activities.

It also seems probable that income alone will not provide a sufficient incentive to achieve the objectives set for development in Sinai. Amenities will also play an important role. Schooling must be excellent; study after study confirms that Egyptians will move to improve opportunities for their children to have a good education--and conversely, they are most reluctant to move to areas where education is inferior. Professionals require a community of other professionals, so the scale of initial development is important. Piecemeal, gradualist approaches are unlikely to be effective in achieving the government's most important developmental objectives. To attract professional, managerial, research and similarly talented personnel, Sinai will have to offer some communities that are conceived and constructed with vision and on a scale appropriate to the needs of those elite cadres and their families.

In addition to income and amenities certain special incentives may be particularly effective--and available at reasonable cost to the overall development budget in Sinai. For instance, land ownership is an incentive known to be powerfully effective in Egypt and one which should be fairly easy and economical to provide.

Finally, there is an esprit to rapid development in a place like Sinai which can serve as a powerful motivator. The challenge of pioneer life, the excitement of a new style of living, and the aesthetics of attractive new settlements in a former desert are qualitative factors not to be underestimated. Without vision, more material incentives are unlikely to be fully effective; but once these intangible factors are mobilized, a momentum of development can be expected to carry the program beyond the ambitious targets Government has set for the year 2000.

6.0 CONCLUSION

6.1 INSTITUTIONS

A broad range of institutions will manage the development of Sinai. Both public and private sector enterprises in Sinai, including branches of national organizations, will carry the main burden of project management in the production sectors (including construction) and in supplying essential telecommunications, power, and other utility services. Enterprises will contribute most efficiently to Sinai's development if Government signals about overall objectives and strategy are unambiguous and demonstrate continuity through time. Enterprise managers will expect consistent effective support from Government (for example, prompt reliable connections to infrastructure services) and will count on national and regional leadership to continue to play a catalytic role in the development process.

Governorates (or possibly a single Governorate) by the year 2000 will have grown in experience and capability at an even more rapid rate than the population and economy of Sinai, whose transformation is described as revolutionary. By the end of this century the governorate cadres must be equipped to provide a very wide range of education, health, agricultural, and social services to a population of one million, and to provide them at a quality standard which overcomes any lingering sense of discomfort among migrants because they are so far from their natural surroundings, their birthplace and kinfolk. Because of the formidable development tasks they will have accomplished, the new lifestyle they will have created, their spirit of innovation, and the transformation they will have managed, the energetic personnel and experimental attitudes of Sinai governorates by the year 2000 could be a model for all of Egypt. Assisting them in their tasks will be officials at town and markaz level, who have also managed exceptionally rapid growth and diversification; settlements which in 1983 cater to a few thousand persons will have grown into small cities with many social and economic activities and populations of 20,000 - 50,000.

In the interim there is a clearly defined need for one or more institutions with a regional mandate and focus. Planning, promotional, and construction skills are needed throughout Sinai, which will be hard to mobilize for one organization, let alone several. Promotion of economic development -- be it manufacturing, mining, tourism, irrigated agriculture and a wider spectrum of rural activities, or the construction industry -- will be most effective if managed by a combination of regional specialists and local host-expeditors.

Water is the most important new resource planned for large-scale introduction in Sinai during this transformational period; it will have to be managed on a regional scale -- as well as nationally and locally. The task to be accomplished by the middle 1990s, both to complete Nile conveyance systems and to develop Sinai groundwater, surface runoff

and storage schemes, requires management of great dedication and capability; this will be difficult to assemble in a single organization, but as the major physical structures are completed and put into operation, some members of the construction and development team can be reassigned to governorate, sub-regional or markaz cadres for long-term management and future expansion of similar facilities. This future configuration must be kept in mind during the transitional period, but it appears unlikely that the transitional task can be accomplished without a regionwide organization through the 1980s and at least the first half of the 1990s.

Similar arguments for a transitional organization apply to environmental tasks, the personnel responsible for land-use planning and allocation, and the designers of new settlements. The case for a peninsular approach to many medium-term development tasks raises the possibility of a peninsular governorate to replace the present structure of two Sinai governorates plus fractions of the three Suez Canal governorates. No doubt that possibility will be examined and re-examined in the next decade or two. However, on the basis of present plans, the Consultant concludes that some organization additional to the governorates will be useful to complement their role during the transitional years remaining in this century. That any such peninsular structure should work closely with Governorates and dedicate itself to handing over many functions to them as quickly as possible is also not in question. But a governorate alone, even a supergovernorate, without the special relationship to the national leadership which is proposed for the Regional Agency, is unlikely to be as effective as necessary to execute the Recommended Strategy. The advantage of a Regional Agency, during the critical transitional period, lies partly in special arrangements it would entail for national level review and authorization of special policies, programs and administrative procedures that may be necessary in Sinai during the next 10, 15 or even 20 years. Thus, the creation of a Regional Agency, while retaining and continually strengthening governorate cadres, provides the necessary combination of special national support and responsiveness to local interests, which the recommended development program requires. The question should not be either/or but rather how the two levels of governmental management can best interact during the transition period.

6.2 STAFF

Whatever combination of organizations is chosen, personnel policies at all levels must be generous enough to attract people who are both technically excellent and willing to innovate and experiment with programs designed to exploit the special opportunities of Sinai. In addition to immediate incentives -- pay and amenities -- it will be important to satisfy potential recruits that their long-term interests are being served by work in Sinai. Top quality managers and planners are unlikely to work for the Regional Agency if they fear it is only a temporary assignment; work in Sinai must be perceived as an opportunity to gain distinction and to advance

more quickly in a career service that is recognized as permanent. One holds out the hope that many young government officers and technicians, who go to Sinai (with their families) for an initial tour of 3-5 years, will settle permanently; but it must be clearly understood that they will also be free to return to Cairo or elsewhere in Nilotic Egypt, if that is their preference, to a job which is superior to any they could have aspired to without service in Sinai. In short, the incentive package for key development management personnel will require advantages both in terms of immediate rewards or incentives and in terms of long-term career prospects.

Permanent full-time staff are needed for planning and coordination functions at all levels -- governorate, proposed Regional Agency, Ministry of Development, and others. Such personnel are needed in much larger numbers than are presently available -- that is to say, dozens immediately and hundreds within a few years, not the handful currently concerned with Sinai's plans. Planners should be closely associated with and have great influence over the choice and implementation of particular programs and projects, especially construction projects. The present separation between planning and execution is, in the Consultant's view, inconsistent with the need for rapid development in Sinai.

The forecasting of skill requirements will be an important element in feasibility studies and sector programs to be articulated during the next few years; planners will take care to bring together the results of individual project studies to formulate subregional manpower plans seeking ways to provide permanent employment for residents and settlers rather than using temporarily imported labor to meet specific project requirements. Agricultural employment of 121,300 (year 2000 target) implies an agricultural extension service of many hundreds, perhaps even 1,500 professional staff. This is a quantum increase from current staffing plans. The exact specialities, geographic distribution and numbers depend on the rate at which reclamation takes place, the extent to which small farms or large agribusinesses participate, and similar factors.

Government staffing of planning/coordinating agencies, extension services and training facilities is a top priority link in the Sinai development chain.

6.3 PHASING OF DEVELOPMENT

The management of development is viewed as a process of balancing programs so that several national goals for Sinai are achieved, even though some of those goals are in conflict with others. Without good management those conflicts will unnecessarily delay the process of development. Management is also viewed as a process of balancing the different needs of different subregions. Finally, management is required to be sensitive to changes in emphasis through time.

Table 6-1 illustrates how the priorities of sectors, construction programs, management concerns and planning activities will change through time. The planning emphasis of one phase will generally be reflected in the construction emphasis of the later phase. Since the table is a summary of changing priorities, it would be a misinterpretation to read it as saying that rural development, for instance, is unimportant after 1986/87; the table is intended to suggest that the rural development program, given proper attention in the next few years, will be strong enough to continue without special emphasis or initiative in subsequent periods.

It is recommended that similar charts of priorities by phase be developed by officials concerned with management of development for each of the planning subregions of Sinai and perhaps for major settlements like El Arish and Abu Rudeis once the overall strategy is decided. The process is useful as a step toward clarifying the programs of each time period and subregion and in aligning officials of several agencies and many enterprise units on a common program of development.

Perhaps the critical difference between Sinai today and in the year 2000 will be the extent to which initiative shifts from Cairo to peninsular personnel and institutions. With the growth of population, experience and economic activity, the shift is inevitable. It is recommended that this be recognized from the start and encouraged. Although initially dependent on the national economy for financial assistance and basic allocations of Nile water, Sinai has habits of self-reliance, which can be kept strong and extended to new areas of responsibility. Local citizens will experience a sense of ownership of plans and new developments only to the extent that they participate in and contribute to the formulation and review of basic strategies. At the same time, the national authorities recognize that the Sinai of the year 2000 will be made up largely of Nilotic Egyptians, whose new preferences reflecting new living conditions are, to some extent, unpredictable at this time. Close monitoring of changing trends, periodic reconsideration of strategic priorities, and open communication between Cairo and Sinai appear to be key themes required of any effective management process for the next two decades, regardless of the particular structures chosen and the particular programs to be executed.

Table 6-1

Development Priorities by Phase

	<u>Priority Sectors</u>	<u>Construction Emphasis</u>	<u>Management Priority</u>	<u>Planning Emphasis</u>
<u>PHASE I</u>				
1982/83	-Rural development	-Ferry crossings	-Regional Agency	-Reserve key touristic, agricultural, industrial sites
to	-Tourist marketing	-Highway network	-Information, monitoring systems	
1986/87	-Agricultural research	-Telecommunications	-Agricultural, industrial credit	-Five subregional plans
		-Wells, small dams, cisterns	-Industrial promotion policies	-Groundwater research
		-Resorts for local tourists		-Water master plan
				-El Arish detailed plan
				-Abu Rudeis new town
<u>PHASE II</u>				
1987/88	-Irrigated agriculture	-Water conveyances	-Water systems	-Settlement plans
to	-Industrial promotion	-Industries	-Five sub-regional economies	-Irrigated agriculture
1991/92	-Manpower and immigration	-New towns	-Job creation	-Export programs
		-Tourist hotels	-Locational patterns	-Watersheds
			-Build local enterprises	-Social development

	<u>Priority Sectors</u>	<u>Construction Emphasis</u>	<u>Management Priority</u>	<u>Planning Emphasis</u>
<u>PHASE III</u> 1992/93 to 2000	-Agricultural processing -Petro-chemicals -International tourism -High-tech industry	-Agricultural projects -Energy systems -Heavy industry -Water, sewerage systems -100,000 housing units -Harbors	-One economy -Exports -Maintenance systems -Revenue generation -Preserving high quality of tourism	-Energy after petroleum -Health and education -Sectoral policies -Regional economy -Infrastructure for population beyond one million
<u>PHASE IV</u> After 2000	-Specialized agriculture -Infra-structure -Higher education and research	-Recycle and reuse of water -Recreation, conservation -Suez Canal tunnel or bridge -Improved housing	-Style of life -Participation in decisions -Environmental enhancement -Reassign interim Regional Agency functions to permanent institutions	-Urbanization -Transport and communications -Maintaining economic growth -Aging population -Review subregional plans and opportunities

A regional meeting place, accessible to Suez Canal Governorates and Cairo as well as to growing urban centers in the El Arish-Rafah and Abu Rudeis-Ras Sudr axes, but not dominated by these important places, may be necessary in the 1990s. Bir El Thamada has been suggested as a possible site for such regional institutions, but the final decision need not be taken at this time. In the interim a pattern of meetings at various Sinai sites -- El Arish, Sharm El Sheikh, Abu Rudeis, El Hasana, El Tor, Ras Taba, Sheikh Zuwayid, Qantara -- could be valuable to give all those concerned with Sinai a sense of the size of the opportunity there and the dynamic diversity of current activities and life styles.

No decision will be more important to the future settlement of Sinai than the choice of a management system to make full use of current and planned investments in infrastructure.

APPENDIX

A PROPOSED SINAI REGIONAL DEVELOPMENT ADMINISTRATION*

The Steering Committee for the Sinai Development Study, Phase I requested a sketch of an independent, high level, national governmental body of the magnitude of the Suez Canal Authority for the;

- developing of Sinai
- carrying-out of plans and projects now emerging from the Sinai Development Study
- continuing of planning for Sinai as conditions there change

The immediate purposes were essentially two:

- implementation of Sinai Development Study projects without loss of development momentum
- establishment of a locus to receive international and other funds for such basic studies identified in the first phase of the Sinai Development Study as the Sinai Well Drilling Program

Proposal A Sinai Regional Development Administration (SRDA) is proposed. The SRDA would be a distinct and autonomous body outside the regular governorate and ministerial structure. It would

- be headed by a single person, the Regional Administrator accountable for the development of Sinai and served by a staff specifically recruited for the administration and answerable to the Administrator.
- have regularly budgeted financial resources (if not, in addition, revenues from development projects in Sinai).
- Posses independent authority (among others) to
 - plan for the development of Sinai
 - carry-out plans, projects and programs for the development of Sinai.
 - approve all plans for the development of portions of Sinai, including plans of local jurisdictions, in conformance with the Sinai Regional Plan by the SRDA

*This Appendix reproduces a proposal prepared in the Ministry of Development and New Communities at the request of the Steering Committee, Sinai Development Study-Phase I, and forwarded to the Consultant for comment under cover of letter MOD/AR/81/213, dated November 14, 1981.

- appoint, remove, and remunerate employees on the basis of merit alone
- incur indebtedness with bonds, or other Egyptian Government guarantees of payment, as well as enter contracts with international, and other investors
- attract and assist investment from many sources for different applications.
- provide certain guarantees and incentives to induce local initiative and spread innovation

- possess temporarily certain ministerial and governorate powers, functions and duties for the initial years after the Return of Sinai and until certain local capabilities for the provision of public utilities are developed

- develop local capabilities to initiate and complete local development programs in the context of the Regional Plan

- by training and placing expertise in local government units.
- by turning-over public utilities (as defined by Egyptian Law) to local government units as these units develop the resources and capabilities to provide these services
- by inducing local incentive and innovation in conformance to the objectives of the Sinai Regional Plan

Area and Domain: The Sinai Development Study area--the entire peninsula of Sinai-- would be the geographic domain of the SRDA for regional matters. Within this area the SRDA would possess all development functions and powers of the ministries and governorates

- including the provision of public utilities where not provided in Sinai
- excluding those functions and powers in the Suez Canal Zone now possessed by the Suez Canal Authority
- excluding those functions and powers of a nonregional nature of the three Canal Zone Governorates
- including joint coordinative review of projects connecting the remainder of Sinai to the three Canal governorates and the Suez Canal Zone. (this could occur in the forum of Region IV of the national planning regions)

Rational for a Separate and Regional Body

- Sinai is an integral whole whose development involves a multiplicity of interdependent projects and governmental units
- the complexity of the undertaking can best be intergrated and achieved efficiently and effectively by a single coordinative center and development plan
- many development projects require capabilities not yet developed in Sinai and expensive and difficult to duplicate in existing units of government in Sinai
- The size and complexity of the development endeavour require a greater flexibility for implementation and continued planning than existing governmental units posses, particularly in the initial years of the Return of Sinai
- both planning and plan execution at the scale and complexity of Sinai have to be carried-out together in order that the requisite flexibity and control for development can be obtained

Accountability and National Relationship While the Regional Administrator would be solely responsible, with sufficient, independence, authority, powers and resources, for the development of the Sinai Region, the Regional Administrator would be accountable to a special ministerial coordinating committee composed of

- The Minister of Development, permanent Chairman
- Minister of Planning
- Minister of Finance
- Minister of Economy and Economic Cooperation
- Minister of Local Government

This committee would function to:

- review the progress of the regional development of Sinai and the consistency of Sinai development plans and programmes with national policies and plans for the country as a whole
- coordinate the activities of other ministries in support of SRDA plans, projects and programs consistent with national policies and priorities
- review SRDA performance in the provision of local public utilities with the assistance of a Regional council of local government units.

The ministerial committee would have the powers to appoint, and to remove with cause, the regional Administrator.

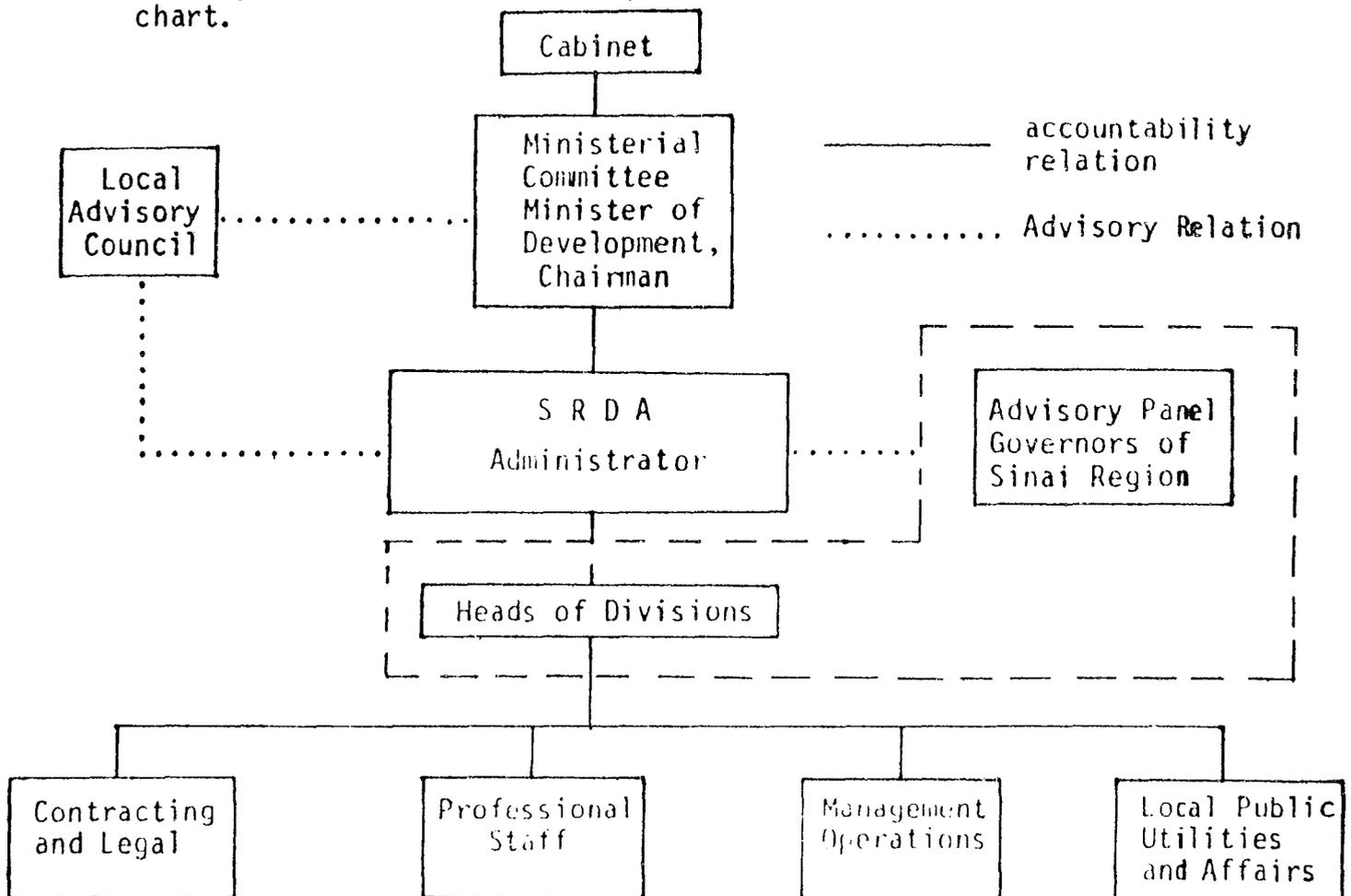
Accountability and Local Relationship

A Regional council of local government units composed of the Governors of Sinai and representatives towns, village councils and cooperative groups would review and report at least once a year to the special ministerial committee regarding the performance of the SRLA as to the

- provision of public utilities
- establishment of local capabilities for the provision of public utilities
- rapidity of turn-over of public utilities to appropriate local units of government

Organization of the SRDA

The Administrator of the SRDA would be fully in charge and responsible for the SRDA administration. The Administrator would receive technical and regional policy guidance from a panel of advisors composed of the heads of the technical and management divisions of the SRDA, the Governors of the Sinai Region and (possibly) the head of the Suez Canal Authority. All decisions and responsibilities for the SRDA, nonetheless would reside in the Administrator. There would be four organizational components, or divisions: Professional, Contracting, and Legal, Management Operations, and Local Public Utilities and Affairs. All organizational relationships described are shown in the following chart.



Phasing of the Development of SRDA

Initial development of the SRDA can begin now as the locus for the administration for

- the Sinai Information System, to be established as part of the first phase of the Sinai Development Study
- the Well Drilling Program implementation, which has been planned in detail as a part of the first phase of the Sinai Development Study and which may be partially funded through the U.S.A.I.D.
- other immediate projects required for further planning and development of Sinai and identified in the first phase of the study such as the mineral exploration program, meteorological program and additional soil survey program

Other stages of the initial development of the SRDA would emerge with other studies now being considered for commissioning as part of the first phase of the Sinai Development Study, such as the proposed North Sinai Coast tourism plan which would result in a basic staff for further tourism, market and planning studies, further regional development studies and a staff for cadastral administration.

Detailed design of the SRDA organization could be part of the work of Phase II of the Sinai Development Study. Phase I of the study does not provide for studies of plan implementation, but funds set aside for Phase II of this study could be requested from the U.S.A.I.D. for such studies of which organizational development could be a part.

Based on this work the intermediate stage of the SRDA could be determined and would involve developing a full regional development capability and a provision of local public services capability.

The final development Phase of the SRDA would occur with the turn-over of local public services to local units of government - the SRDA would then continue with its regional level development and its coordinative functions.

BACKGROUND AND DISCUSSION PAPER FOR THE PROPOSAL FOR A
SINAI REGIONAL DEVELOPMENT ADMINISTRATION AND SKETCH OF ITS PURPOSE,
POWERS, FUNCTIONS, RELATIONSHIPS, ORGANIZATION AND STAFFING

The Sinai Development Study, Phase I, now being conducted for the Ministry of Development, will result in a strategy for the development of Sinai together with the identification of projects for early implementation. Some 200 projects have been identified to date, together with the identification of larger programs for the development of agriculture, industry, mineral resources, tourism, and human settlements. With the return of the remainder of Sinai in April, 1982, Phase II of this effort will begin to identify further projects within the context of an integrated plan aimed at the social and physical development of Sinai and the resulting contributions of these activities to the Egyptian people and economy as a whole.

The promise and opportunities of Sinai are great. The complexities and challenge are equally great. In order that the promise and opportunities be realized, new modes of action, organization, mobilization of resources, and responsibilities are required. Existing organizations, organizational arrangements and organizational resources are insufficient and inadequate to the challenge and task of developing Sinai.

it is proposed, therefore, that a Sinai Regional Development Administration be created so that:

- Sinai does not remain a land bridge between two continents and site for wars, its historical role since Alexander, but becomes an integral part of a developing and prospering Egypt, contributing to the realization of the national objectives of:
 - opening of new lands outside the Nile Valley for agriculture and food production.
 - developing natural resource wealth of minerals and tourism for foreign exchange.
- projects do not remain projects, but are realized in the right sequence, at the right time, at the planned level of investment.
- development momentum is not lost but maintained by a clear commitment through the establishment of a central focus of responsibility for the development of Sinai, with the powers, resources, and abilities to:
 - devise detailed plans for regional implementation in many sectors.

- attract and assist investment from many sources for different applications.
- carry out regional and other projects for a total development effort.
- refine the regional strategy plan and change its direction as appropriate to changing conditions and development-created opportunities
- develop local capabilities to initiate and complete local development programs in the context of the regional plan.
- establish an active model for the development of other regions of Egypt along with establishing a source for the diffusion of experts and expertise to these other regions and to local governments.
- involve local people and other local resources in a process of self and local development.

Initial Funding Source and Action Steps to Establish a Sinai Regional Development Administration.

Aside from the necessary presidential, ministerial and legislative actions, a detailed study for the establishment of the Sinai Regional Development Administration (SRDA) and the initial development and staffing of the Administration can begin now as an early Phase II study and project of the Sinai Development Study. Funding support from the United States Agency for International Development (USAID) can be requested from money set aside for Phase II. Detailed study of the SRDA organization could be part of a plan for implementation, a work element not contained in Phase I of the Sinai Development Study.

The proposed Sinai Regional Development Administration could be started now, by developing staff around projects emerging from Phase I of the Sinai Development Study which are both key to the development of the SRDA necessary for more detailed studies and the development of projects for investors. The emerging SRDA could begin, for example, as the locus for the Sinai Information System, to be established through the work of the Phase I Study. Building on this base, the first task of the SRDA could be execution of the Well Drilling Program. This water program is of vital importance to the further development of Sinai, has been planned in detail and may be partially funded through USAID, which has expressed strong interest in proceeding with the program and is waiting for an application from the officially designated Egyptian Government agency.

Other immediate projects, upon which to build the SRDA while at the same time obtaining the basic studies required for further detailed planning and serious interest on the part of international lending institutions, are mineral exploration, meteorology and additional soil surveys--all three of which, like the Well Drilling Program, have been developed in Phase I and are ready for execution.

Other staff needs for the SRDA could come from the Sinai Development Authority of the Ministry of Development, or would emerge from studies to be commissioned from Phase I, such as the proposed North Coast Sinai Tourism and Structure Plan. This study has elements of organization and staff training which are basic to any development activity, such as a planning staff, a land sale and cadastral instrument staff and the like. Essential characteristics of building the SRDA are the training aspects of such Phase II plans and the continuity of Egyptian staffs involved in such plans. To carry-out the Regional Development Plan, not only requires a strong organization, but also a superior professional staff.

A Sinai Regional Development Administration, because of the scale of the task and the area dealt with and the range and complexity of development activity, will require a greater range of functions and expertise to carry out its mission than those now granted the High Dam Lake Authority (HDA) and the Suez Canal Authority (SCA), or other authorities--if it is to be successful. Such additional powers and functions would include:

- certain powers of the Ministry of Development concerning New Communities (Presidential Decree No. 59 of 1979) and implementation powers for reconstruction (Law 62 of 1974)
- certain powers of the Governors of the Governorates presently composing Sinai^{1/}, such as:
 - the management of public utilities of a regional nature,
 - the management of public utilities not exercised by local units of government and otherwise assumable by the Governors (Presidential Decree No. 5 of 1979)
 - the assumption of executive authority granted to Ministers by law and regulation and subsequently designated to be the Governors in regard to public utilities and local public authorities and cooperatives (Presidential Decree No. 5 of 1979, Article 2), but of a demonstrable regional nature, and,
 - the assumption of executive authority by the administrator of the SRDA, as the superior of the regional administration personnel

^{1/} It would be wise to have the boundaries of the SRDA's area coincide with the existing political boundaries, i.e., those of the Governorates. This area may thus be the Governorates of North and South Sinai alone or it may be those two Governorates, plus the three Suez Canal Governorates of Port Said, Ismailia and Suez. If, however, all five Governorates are included it is likely that the larger concerns of the Suez Canal Governorates will overwhelm those of the more thinly populated Sinai.

- certain other power necessary for the preparation and implementation of regional plans, programs and projects or those deemed vital to the Regional Development Plan. These planning and implementation powers would include those of the Regional Planning Committees (Law 495 of 1977), the following, among others:
 - power of expropriation as justified by the plan, fair hearing and compensation.
 - power of regulation and law in execution of the plan such as settling limits to the use of land in addition to agreements in the sale of land.
 - power of taxation and earning of income for regional projects and purposes.
 - power of direct contact with investors and lending institution, national or international.
 - power to incur indebtedness by means of bonds or other instruments guaranteed by the Egyptian Government.
 - power to determine sites and limits to free zones. (Presidential Decree No. 59 of 1979).
 - power to receive grants of funds, national or international, and negotiate and enter into agreements of conditions to the receipt of such grants.
 - power of budget making and budget transfers for operations and for development of the region.
 - power of purchase and sale.
 - power to tender, negotiate and contract, including certain powers of discretion of the Ministry of Development regarding import taxes and duty waivers, for works and for consultants, national or international.
 - power to waive provisions limiting salaries of employees or other compensation benefits (Laws 58 of 1981 and 961 of 1981) and otherwise reward performance on the basis of merit. (This would also include matters of housing as with the Suez Canal Authority) and pension (Law 62 of 1974 applying to the Ministry of Development).

This power would also include the freedom to appoint employees purely on the basis of merit.
 - special powers to experiment with new techniques, approaches, or other improvements to existing practices by contract and financial guarantees for possible loss (This can

be demonstrated by example: It may be desirable to introduce new crops or methods of irrigation but farmers might resist the new (to them) technique, fearing loss or nonprofitability in comparison to known crops or methods. This power, supported by budgeted amounts, would guarantee the farmer the return usually experienced by him, if there is a loss, but would permit him any excess gained by the new crop or method. This power could as easily apply to private sectors activities such as local hotels, personal service or housing contractors as to public sector companies, cooperatives or local governments. Such guarantee, of course, would only apply where the farmer, etc., followed the procedures of the "experiments.")

General Organization Form, Responsibility and Accountability of the Sinai Regional Development Administration (SRDA)

The objective is to build Sinai and to build Sinai with intelligence. This requires the combination of planning and implementation under one individual who has knowledge and understanding of both processes. This Development Administrator would be fully responsible for the SRDA, which would have all powers and authority to develop Sinai. The Development Administrator would receive technical and regional policy guidance provided by a panel of the heads of the technical and management divisions of the SRDA, the Governors of the Sinai Region, and (possibly) the head of the Suez Canal Authority. The Development Administrator would chair this panel, which would meet on a regular basis for the purpose of policy formulation, project monitoring and evaluation and other matters of concerning the development of Sinai and the business of the Administration. All decision and responsibility would reside in the Development Administrator and all staff would report to him.

The Administrator would be accountable to a committee composed initially, and later by the designates of the Ministers of Planning, Finance, Economy and Economic Cooperation, and Local Government. The Minister of Development would serve on this Committee at all times and act as perpetual Chairman. This Committee would have the powers to appoint and remove the Development Administrator and review the policies for, and progress of, the development of Sinai. The Committee would function, in addition, as the mechanism to coordinate the effort of other Ministries in support of the development of Sinai and to coordinate Sinai development in the context of national plans, policies, and objectives (including those applicable plans of other ministries).

Staffing and Local Participation

The SRDA would have the powers and functions for Sinai (here made more explicit) of the following "development" ministries

Development
Land Reclamation
Agriculture
Irrigation
Industry and Mining Resources
Tourism

the "infrastructure" ministries

Housing*
Transportation, Communication and Maritime
Electricity and Power*

the "service" ministries

Education*
Health*
Social Affairs*
Supply and Internal Trade

(*Designated explained in text, following)

The SRDA would be responsible, in addition to its regional development mission, for developing local capabilities for the development and management of public utilities and would turn-over these responsibilities as quickly as local government capabilities can be developed (public utilities to mean those functions and services identified and listed in Presidential Decree No. 5 of 1979, and include, among other things, those areas of concern designated by asterisk (in the list above).

Review of the SRDA performance and policies regarding public utilities and the establishment of local capabilities will be made at least once a year by a Regional Council composed of the Governors and representatives from local governments, including as a minimum one elected leader from each district, town, and village council and various cooperative groups. The Development Administrator will chair these council meetings and file a report with the Committee chaired by the Ministry of Development and with the local government entities of the council. /1

/1 To place the Administrator in closer contact to local people. The Minister of Development should also attend these meetings to minimize the possibility of the Administrator suppressing local views.

Staffing of the SRDA would include, among other, the kinds of expertise suggested by the list of Ministries. Not all of these ministerial functions and the corresponding expertise need be claimed by the SRDA. Some of these functions and the corresponding expertise may be contracted for with these and other governmental units.

The Final Phasing of the Administration Power and Function

These unusual powers would be limited to that point in time when the development requirements of Sinai were no longer exceptional, in relation to the general level of development of the country as a whole. The intent is to use an initial set of powers and functions to start-up the development of Sinai in all its aspects, with the eventual turn-over of these functions and powers to regular units of government. The SRDA would however, retain the functions and powers for uniquely regional projects and for planning the region as a whole.

Subregional Plan Conformance

All plans in for portions of the Sinai, including local jurisdictions would conform to the Sinai Regional Plan as developed by the SRDA,

Relation to Sinai Development Study Steering Committee

Until the time when necessary legislation is passed and a presidential decree promulgated for the establishment of the Sinai Development Administration, the Steering Committee could provide the guidance and overview proposed for the Committee of Ministers chaired by the Minister of Development. If the Sinai Regional Development Authority is established during the Phase II planning, the Regional Development Administrator and members of the Committee of Ministers would replace the Steering Committee for the Sinai Development Study in matters of policy decision.

Limitation of Existing Organizations as Development Models

There are existing organizations in Egypt for regional planning (e.g., the eight regions or provinces composed of Governorates established by Presidential Decree No. 495 of 1977; of the Central Agency for Reconstruction in the Ministry of Development) but these organizations are without implementation powers of a kind involving actual contracting of project work, permitting the monitoring of development projects in process, or connection with international investors. The success of such organizations as the SCA or the HDA resides largely in the combined powers to plan and to execute the plan developed, which fuses thought and action in one body.

Success of the HDA and the SCR also stems from the fact that full authority to plan and execute plans is combined with sufficient budget and human resources.

The SCA, for example, has powers to tax, rent, and purchase land; power to appoint and dismiss personnel; power to fix salaries, to contract and enter joint projects, power to operate its facilities and collect

fees, among other powers. It operates independently of Ministries and Governorates and its Chairman is directly responsible to the President (Law 30 of 1975).

The SCA and the HDA while suggestive of certain powers required for successful development realization, are not entirely appropriate models for the Sinai Regional Development Administration. The SCA and HDA are focused on a defined geographic area and devoted to the operation of a single facility, a dam or a canal. While they are major endeavors, the planning and operation of these two facilities are not of the complexity of region development, which involves multiple purposes.

Comparison of Possible Regional Development Organizations

In general regional development overlaps the two ways governments are organized, by activity sector and by geographical area. It involves multi sector and multi-governmental concerns to a degree other government forms seldom experience. Where regional development bodies have failed to be effective, the failure was the result of poor coordination between the multiplicity of interests and jurisdictions--with a consequent lack of clear direction and a lack of commitment resources.

There are three possibilities for regional development organization:

- 1) Creation of a regional organization by assignment to an existing government agency, usually a Ministry, from which regular civil servants are obtained for management and coordination (the Development Authorities of the Ministry of Development are an example).
- 2) Creation of an area-based coordination council or committee composed of the local government representatives (sometimes also of Ministries) making-up the area who attempt to coordinate their own activities and those of appropriate Ministries (or local governments if the Council is composed of Ministries), e.g., Governorates in the case of the Presidential Decree No. 495 of 1977.
- 3) Creation of a distinct regional development administration, usually autonomous, from outside the regular government structure with staff recruited specifically to serve the development administration, regularly budgeted financial resources and independent authority to perform specified functions (the SCA as an Egyptian example of this type of organization. Other examples are the Tennessee Valley Authority (TVA), the Puerto Rico Planning Board, the Housing Bank of Brasil, the New York City Planning Commission, the American community development departments. It should be noted that the SCA, the TVA and the Housing Bank are partly financed by revenues from their own operation).

There are advantages and disadvantages to each form. The first is often favored by Ministers, as a form of retaining control of a region of particular importance to their Ministry or who have the staffing on hand to expedite development of regional capability. The first form has the disadvantage of poor coordination and non-action, when other Ministries or governmental units of equal status are involved and disagreements arise among them, or commitments or resources are slow to be delivered by them.

The second method has the advantage of providing a political base of support from the various constituencies, which can provide a strong impetus for project acceptance at the local level, if properly coordinated, as well as a focused drive for project implementation. The usual history, however, is that such agreement of focus occurs only occasionally in the face of recognized critical situations.

The third, which is the form proposed, has advantages outweighing disadvantages. It is structured to assure coordination by its autonomy and full accountability, authority and staff loyalties. Its financial resources are shielded from the competition of other ministry or government unit concerns and changing priorities. It can, by its special status, usually give higher salaries, better fringe benefits and other amenities to attract highly skilled and effective professionals and administrators from outside civil service personnel and pay-scale constraints. As an independent body it has greater flexibility to innovate and to act than do regular government agencies. It usually is freer of bureaucratic routine, red tape, and structures inhibiting change of organization procedures and decisions in response to changing conditions. For these reasons lending institutions prefer to work with such organizations./1

There are disadvantages to the third organization form. These consist of variations of two themes: these organizations perpetuate themselves after the major elements of their initial mission are completed; or they are, in their autonomy, too aloof and removed from local political participation and consequently, local support.

The steps outlined here for the proposed SRDA, involving a local government council and a later narrowing to only regional concerns, hopefully minimize these general disadvantages. The review by a national Ministerial Committee should enforce this as well as contain the SRDA activity within national policies and priorities.

/1 Dennis Rodinelle and Kenneth Rundle, Urbanization and Rural Development: A Spatial Policy for Equitable Growth. (New York: Praeger, 1978). p. 116, where the authors, summarizing IBRD experiences in Cameroun, Malawi, and Ethiopia among others, state ". . . international lending institutions, especially the World Bank have insisted on this arrangement as a means of increasing the probabilities of successful execution and loan repayment".

An Alternative Proposal

The preceding discussion sketches the powers and some of the organizational and governmental issues involved in the development of Sinai. An alternative proposal could be developed, drawing on the same powers and advantage of a single regional focus, around the notion of a single, super-governorate for Sinai.

The rationale for such a super governorate (including a merit-based civil service, retention of some sources of revenue to be used for Sinai development-urposes, etc.) resides in the remoteness of Sinai, its sparse population, and the burden of successive layers of government, including the proposed Sinai Regional Development Administration. This proposal would have the advantage of minimizing possible opposition (continuing) on the part of the Governors responsible for the Sinai to the SRDA. It would have a disadvantage in that unlike the SRDA the super-governorate would not be subject to national policy review in a coordinating forum such as that proposed for the SRDA, through the Committee of Ministers chaired by the Minister of Development. Also it would not, because of size, be as directly responsive to local concerns and politics as the SRDA.

While there may be possible opposition on the part of the governors (to both proposals, this opposition in the case of the SRDA, can be viewed as part of the expression of local concerns and politics. Such expression is open for review by others, whereas local expression of opposition views under the super-governorate may not be as open, nor well articulated, as that expressed by the governors in response to SRDA policies, plans and programs.

Mode of Organization, Sinai Regional Development Administration

Where separation of authority and a development view that focuses on less than all of Sinai can lead to suboptimization (or an imbalance in the application of resources), the amassing of many governmental powers, resources and responsibilities raises the questions of the controllable size of organization and span of internal control.

First, the SRDA need not have many employees, since it encompasses initially only those functions not provided by other governmental units in the Sinai and later only those functions which are of a regional nature or to which economics of scale accrue with a single organization. The SRDA would grow in response to the requirements for initial development and diminish in size as local capabilities materialize. Very specialized functions and expertise can efficiently be contracted for by the SRDA. A large organization is not needed in order for the SRDA to be both efficient and effective.

Second, the issue of span of control can be handled by different forms of internal organization; dealing with matters of routine in a heirarchical form of organization; and dealing with matters requiring creativity, innovation, flexibility and adaption through a mission (or re-assembly of teams by project) form of organization led by the

various department heads under the direction of the Regional Development Administrator.

Qualifications Required

The success of the Regional Administration for the development of Sinai calls for an exceptional person, incorporating both knowledge of the planning and implementation process and entrepreneurship within a political context. Clearly accountable, the administrator must have the responsibilities and resources to act with the minimal interference.