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Development Opportunities in the Occupied Territories

(West Bank and Gaza Strip)

Infrastructure

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PREFACE

This analysis of the infrastructure sector was prepared by Policy Research Incorporated (PRI) as part of an assessment of development opportunities in the Occupied Territories. That assessment, initiated in December, 1991, included a review of eight sectors: agriculture, education, finance and credit, health, industry, infrastructure, trade, and water and sanitation. The process by which the reports were developed included:

- 1) on-site data collection by two American development experts, Dr. Irene Jillson-Boostrom (Senior Technical Advisor) and Dr. Alan Richards (International Consultant);
- 2) the preparation of literature and information syntheses by Palestinian experts in each of the sectors (see attached list);
- 3) review of extensive documents across the sectors (including more than 300 documents from the Occupied Territories, Israel, donor organizations and relevant general development reports);
- 4) preparation of the draft analyses for each sector, with Dr. Jillson-Boostrom preparing those for health, industry, infrastructure and trade and Dr. Richards preparing those for agriculture, education, finance and water;
- 5) follow-up data collection and analysis by Dr. Jillson-Boostrom (to clarify issues and obtain additional data, when possible); and
- 6) preparation of the final development report for each sector and of the cross-sectoral analyses, by Dr. Jillson-Boostrom.

Each of the eight sectoral reports follows a consistent outline, as follows: executive summary of findings, introduction (including a discussion of the importance of the sector for development and key issues, if any), sectoral status and trends, institutions involved in the sector, constraints to development, and development opportunities. Citations for data and information presented in the reports are included at the end of each report; the Executive Summary does not contain specific citations. In addition, each report includes two appendices: 1) *Context of Development in the Occupied Territories* (background relevant to all sectors), and 2) *Visions of a Sustainable Future*, (a discussion of the overall potential for development in the Occupied Territories). In order to contribute to the discussion of sectoral as well as cross-sectoral needs and development opportunities, a particular effort was made to describe the organization and function of each sector in the Occupied Territories insofar as possible.

The sectoral reports are intended to add to the resources available for those involved in development planning in the Occupied Territories. In reviewing these reports, it should be recognized that circumstances have limited the degree to which preparation of these documents has followed standard sector analysis procedures. Data limitations are discussed in each of the documents; such limitations exceed those that pertain in many developing countries. Curfews and strikes hamper data collection. Thus far the final draft documents have not been

reviewed by those involved in development planning and implementation in the Occupied Territories in order to ensure that the documents accurately reflect the reality of each sector. Nor is it possible to ensure that the complete range of opinion and all available data sources have been included, although every effort was made to do so.

The conclusions and recommendations presented in the sector analyses are intended to serve as examples for Palestinians, donors and others involved in development planning for the Occupied Territories. It is recognized that each entity involved in this process will have its own specific world view and development goals to which these recommendations may or may not relate. The goals included in this report (in Appendix II, Table 2), based on general development goals derived from World Bank documents and other sources, are intended to stimulate ideas and discussion.

Acknowledgments

Preparation of this report on infrastructure in the Occupied Territories would not have been possible without the contributions of many individuals. Dr. Hisham Awartani facilitated access to important data resources in the West Bank; Mr. Fayez Al Wahaidi facilitated access to data resources in the Gaza Strip and prepared a report on non-governmental organizations in the Gaza Strip. Two Palestinian consultants prepared a report on infrastructure in the Occupied Territories: Dr. Samir Abu Eiseh (for communications and transportation) and Dr. Omar Kittaneh (for electrification). Ms. Monica Awad provided invaluable assistance with respect to identifying and collecting relevant documents, making logistical arrangements and performing other research and administrative tasks.

Cora Gordon and Christine Baluck, both of Policy Research Incorporated, assisted in compiling information resources available in the United States, reviewed and commented on multiple drafts of the reports and assisted in the production of the document. Dr. Mae Thamer, also of PRI, reviewed and commented on the initial draft prepared by Dr. Jillson-Boostrom. Sara Davidson edited the final draft of the report and designed and executed the desktop published version.

I am also most grateful to the representatives of donor organizations and international private voluntary organizations (PVOs), and to the more than 100 Palestinians who agreed to be interviewed. All provided information and ideas necessary for these analyses and engaged in constructive discussion of development opportunities in the Occupied Territories. I trust that this report will be useful to them and to all those involved in efforts to promote sustainable development in the West Bank and Gaza Strip.

Irene Jillson-Boostrom, Ph.D.
Clarksville, Maryland
October, 1992

ACRONYMS

ACC	Agricultural Coordinating Committee
ACCI	Arab Development and Credit Company
ACDI	Agricultural Cooperative Development Institute
ADCC	Arab Development and Credit Company
AGREXCO	Israeli State-owned Agricultural Marketing Company
AID	Agency for International Development
AIE	Arab Insurance Establishment
AMIDEAST	American Mideast Education & Training Services
ANERA	American Near East Refugee Aid
CBS	Central Bureau of Statistics
CCC	Civilian Conservation Corps
CD	Cooperation for Development
CDP	Cooperative Development Project
CIS	Commonwealth of Independent States
CIVAD	Civil Administration
CRS	Catholic Relief Services
CWA	Communications Workers of America
DOA	Department of Agriculture
DOS	Department of State
EC	European Community
ECWA	Economic Commission for Western Asia
EDG	Economic Development Group
FTA	Free Trade Agreement
GCMHC	Gaza Community Mental Health Committee
GDP	Gross Domestic Product
GFTU	General Federation of Trade Unions
GHS	Government Health Services
GNP	Gross National Product
GOI	Government of Israel
ICARDA	International Center for Agricultural Research in the Dry Areas
ICD-9	International Classification of Diseases
ICS	International Christian Society
IDF	Israeli Defense Force
ILO	International Labour Organization
IMR	Infant Mortality Rate
JCO	Jordanian Cooperative Organization
JD	Jordanian Dinar
JFPP	Jordanian Family Planning Program
MAP	Medical Aid to Palestinians
MCH	Maternal and Child Health
MOI	Ministry of Interior

NGO	Non-Governmental Organization
NHI	National Health Insurance
NICU	Neonatal Intensive Care Unit
NIS	New Israeli Shekel
OECD	Organization for Economic Co-Operation and Development
OT	Occupied Territories
PARC	Palestinian Agricultural Relief Committee
PFS	Patients Friends Societies
PFWAC	Palestinian Federation of Women's Action Committees
PHC	Primary Health Care
PLO	Palestinian Liberation Organization
PRCS	Palestinian Red Crescent Society
PVO	Private Voluntary Organization
SAI	Statistical Abstract of Israel
SCF	Save the Children Federation
SCHC	Society for the Care of Handicapped Children
TDC	Technical Development Center
TDG	Technical Development Group
TDP	Trade and Development Program
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Program
UK	United Kingdom
UNESCO	United Nations Educational, Scientific & Cultural Organization
UNICEF	United Nations Children's Fund
UNIDO	United Nations Industrial Development Organization
UNRWA	United Nations Relief and Works Agency
UPMRC	Union of Palestinian Medical Relief Committees
USG	United States Government
VAT	Value Added Tax
WHO	World Health Organization
WUB	Workers' Unity Block

Physical infrastructure--communications, energy and transportation--is a vital link for economic and social development. Without adequate infrastructure, the productive private sector cannot adequately compete in domestic or global markets. In addition, the use of physical infrastructure projects as a means of jobs creation has historical precedent and is increasingly seen as an option in countries with increasing unemployment, including the U.S. With the exception of relatively small investments in road networks and rural electrification projects, donors have not been involved in this sector. When donors have invested in the physical infrastructure sector, villagers have shared the cost of most road construction or repair projects.

Bezek, a semi-public Israeli company which liaises with the Israeli Civil Administration (CIVAD), controls all telecommunications in the Occupied Territories. Of 400 villages in the West Bank, only 80 have telephone service. This is largely due to impediments to access to the communications network rather than to potential customers' ability to pay for service. Even in the urban areas, demand for telephone service far exceeds supply; for example, as of 1991, there were 12,500 applications for service pending in the West Bank. While no comparable data are available for the Gaza Strip, it is generally agreed that the communications system lags behind that of the West Bank. In both areas, repair and maintenance are minimal, with frequent service breakdowns and long delays before repairs are initiated. Notably, although several of the vocational/technical schools provide training in telephone repair, instruction in this area is restricted for security reasons by the Government of Israel (GOI).

While 95% of urban areas in the Occupied Territories are supplied by electricity continuously, less than half of all rural areas have continuous access. More than 25 villages in the West Bank have no electrical supply whatsoever. Although quasi-public municipal electrical companies have existed in the Occupied Territories since 1928, the system has been, for the most part, tied to the Israeli grid since 1967. The municipal companies serve as distribution networks, purchasing electrical supply from the Israel Electric Corporation. However, they have little authority to plan adequately for appropriate distribution and scarce finances for operations and maintenance, training of staff or implementation of alternative energy projects. In part as a result of scarce funds, power stations and peripheral equipment have deteriorated significantly. CIVAD has not allowed the Palestinian municipal power companies to expand capacity and has disallowed most new rural electrification projects; however, the municipal companies have been permitted to expand their capacity to supply electricity to the settlements in their areas.

Since there is no airport (to which Palestinians have access), no operating seaport and no railway system in the Occupied Territories, Palestinians are entirely dependent on the road network for transportation. Particularly in the rural areas, this road network is wholly inadequate, with scarce funds being allocated for maintenance. The Gaza Strip, as in other sectors, has a substantially poorer road system than does the West Bank. There is only one main road in the Gaza Strip from Gaza City to Khan Younis to which Palestinians have access; when that road is closed, access from one end of the Strip to the other is minimal. Because

Palestinians may not themselves ship goods from airports and seaports in Israel, roads are particularly important for the productive private sector in the Occupied Territories, since they are the only route currently open to Palestinians for export of goods through Israel and Jordan to other export markets.

Finally, the GOI makes minimal investment in physical infrastructure in the Occupied Territories (but encourages donors to do so). Donors, on the other hand, have scarcely funded this sector; moreover, they do not seem inclined to support physical infrastructure which will benefit the productive private sector, with the exception of agricultural roads. Because Palestinians themselves have little if any means of supporting such projects, the infrastructure is currently inadequate to support significant improvements in economic development in the Occupied Territories.

Table 1, found on page 22 of this report, presents a summary of conclusions and recommendations for infrastructure.

II. INTRODUCTION

A. IMPORTANCE OF PHYSICAL INFRASTRUCTURE FOR DEVELOPMENT IN THE OCCUPIED TERRITORIES

This report focuses on the physical infrastructure sector--energy, transportation and communications. Because electrical energy is the dominant form of energy used in the West Bank and Gaza Strip, the sectoral analysis pertaining to energy will address electrification only. Water supply, usually considered part of the infrastructure sector, is such a critical issue in the West Bank and Gaza Strip that a separate analysis has been prepared in a companion report. The service sector, which is in some development literature termed "social infrastructure," is discussed in separate reports on education and health, with related physical infrastructure (health facilities and schools) considered within those reports. Economic infrastructure projects related to agriculture (e.g., slaughterhouses and cold storage facilities) are discussed in the companion report, Agriculture in the Occupied Territories. Finally, because at least two donors (the European Community (EC) and A.I.D.) are funding studies of housing in the West Bank and Gaza Strip, housing ("shelter projects") is discussed only briefly in this report.

Infrastructure, an often neglected topic in the discussion of economic development, is linked with every other sector of the economy and provides a foundation for economic development through jobs creation and as an essential part of the productive and service economy. The linkages between and among transportation, communications, energy and the productive sectors of agriculture and industry, for example, are well documented. Road networks facilitate the transfer of goods and services across sectors, and the service and productive economies are dependent on energy and communications especially for agriculture and industry.

The population distribution of Palestinians is an important consideration for infrastructure, as large proportions of villages are without communications, electricity and/or adequate roads (see discussion in each of these subsectors). As of 1990, one-quarter of the population lived in 446 villages with populations of 5,000 or less, with 15% living in the 376 villages with populations of 2,500 or less. Communications are also deficient in the refugee camps in which 17% of the Palestinians lived in 1990.¹

B. KEY ISSUES

The Janus-like nature of infrastructure has confounded development experts for some time. While physical infrastructure undeniably contributes importantly to economic growth, it can also absorb a large proportion of the funding for the other sectors. In a World Bank treatise on investment in development, Baum and Tolbert described the significant contribution of physical infrastructure as follows:

"Often more effective than subsidies in alleviating poverty, while at the same time stimulating economic growth, has been the provision of infrastructure--roads, electricity, water, schools, and so forth--on which farm productivity and the quality of rural life depend."²

However, in view of the fact that physical infrastructure is traditionally funded by or through the public sector, the trade-offs between public sector services (e.g., health and education) and physical infrastructure are difficult. Therefore, because it requires significant investment of financial resources, physical infrastructure (including roads, bridges and rail networks) is often neglected in both developing and upper-income economies. The ability for a nation, state or community to manage infrastructure projects is of critical importance and requires trained technicians, modern equipment and energy-saving technology, as well as adequate systems for planning and managing the projects, including information systems. There must also be a vehicle for ensuring appropriate linkages between infrastructure projects and the residential, industrial, agricultural or social service sectors they are intended to support. Finally, there must be a mechanism to ensure cost-recovery, either through a tax system (for public projects) or through a fee-for-service system (for private, quasi-public or public projects).

Traditionally, development of basic physical infrastructure is the responsibility of the government, a quasi-governmental authority, or it may be a subsidized private sector institution with fee recovery as appropriate (e.g., for electrification, communications). In the Occupied Territories, the GOI exerts control over communications, energy and transportation through direct control (via the responsible CIVAD agencies and the Israeli agencies and companies with authority for the sector), as well as through approval authority over all projects undertaken in the Occupied Territories. For example, although Palestinian municipalities and village councils are responsible for planning, designing, executing, administrating and maintaining of roadway systems within their municipal boundaries, they do so only with the approval of the CIVAD. Communications, on the other hand, is the sole responsibility of the CIVAD Post and Communications Departments; the municipalities and village councils have no responsibility or authority in this subsector.

The proportion of the work force employed in transport, storage and communications in the West Bank increased minimally between 1980 and 1990, from 4.5% to 5.7% of the work force in the West Bank. The proportion decreased in the Gaza Strip, from 6.6% to 4.8%.³ In 1986, the most recent year for which data are available, the total capital investment in transportation and communications in the West Bank and Gaza Strip was \$7.7 million, with \$4 million allocated for roads; however, most of these funds were used for construction or repair of settlement roads.⁴

Ensuring that the West Bank and Gaza Strip have an adequate physical infrastructure to support the productive private sector, health and social services and the normal functioning of the jurisdiction will help to ensure long-term economic development for the Occupied Territories. However, the current political situation and the scarce financial resources available for operating costs of both public and private sector projects raises concern with respect to the ability for infrastructure projects to be adequately maintained even if funds are provided for their construction. The disinclination of donors to support operating costs (or even construction projects, if there is a possibility that they will be used by settlers rather than the population for whom they are intended), further heightens this concern.

Each of the subsectors of physical infrastructure is described separately, followed by an overview discussion of donor investments in physical infrastructure, constraints and opportunities for development.

III. COMMUNICATIONS

A. IMPORTANCE OF COMMUNICATIONS FOR DEVELOPMENT IN THE OCCUPIED TERRITORIES

Adequate communications are vital to the effective functioning of public and private sector operations. Owners of firms in the U.S., Israel and elsewhere not only take telephones for granted in their conduct of business, but increasingly have access to and depend on newer technologies which are based on sophisticated telecommunications systems that open doors to the global marketplace. In the Occupied Territories, the communications system is wholly inadequate; many villages are without telecommunications linkages, and others fall far short of meeting demand and are often in disrepair. This hampers the provision of vital health and social services, obstructs social and intellectual exchange and impacts severely on the ability of the productive private sector to compete on the open market.

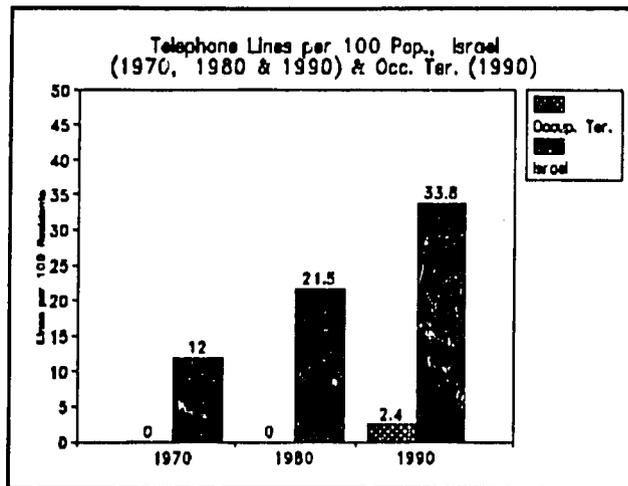
B. INSTITUTIONAL ARRANGEMENTS

All mail and telecommunications in the Occupied Territories are administered by the CIVAD. The Post Office Department is headed by an Israeli military officer and has branches (post offices) throughout the Occupied Territories.⁵ Bezek, a semi-public company which liaises with the Civil Administration, controls all telephone, telex and facsimile communications in the West Bank and Gaza Strip.⁶ In both areas, the telephone grid (as with the electrification grid) is connected to a main Israeli grid.

C. SECTORAL STATUS AND TRENDS

The telephone system was improved in the early 1980s, with automatic and semi-automatic systems being introduced in major urban areas using microwave connectors for intra-urban transmission and satellite stations for extra-territorial transmission. In some remote areas and refugee camps, manual machines with few connecting lines are still in use. According to Abu-Eisheh, as of 1990 there were 36,200 automated telephone lines in the West Bank and Gaza and 6,800 manual lines.⁷ The ratio of telephone subscribers to total population in the West Bank and Gaza Strip was 1:46;⁸ approximately 12,500 applications for telephone service are pending in the West Bank alone.⁹ According to the 1991 Statistical Abstract of Israel, there were 33.8 telephone lines per 100 Israeli residents in 1991 (a 57% increase since 1980). By comparison, the number of telephone lines per 100 residents in the Occupied Territories was 2.4 in 1990. No historical comparison data for 1980 are readily available. See Figure 1 on the following page.

Figure 1



Source: Compiled from data in Israeli Statistical Abstract, 1991. Central Bureau of Statistics: Jerusalem; 1991., p. 508

Given the size of the population, the availability and quality of telephone service in the Occupied Territories is comparable to that of low-income countries. Of 400 villages in the West Bank, only 80 have telephone service; of these, many have only one connecting line.¹⁰ All Israeli towns have telephone service. No comparable data were available for the Gaza Strip. Few individual Palestinians or private productive enterprises have access to telex, facsimile machines or electronic mail systems. The lack of telephone service is not due to the inability of Palestinians to pay for such service, but rather to the fact that Bezek is unable to provide the required services for Palestinians residing in the Occupied Territories.

With regard to mail service, there is an estimated unmet demand of 4,000-5,000 new post office boxes in the West Bank.¹¹ No comparable data are available for the Gaza Strip. In view of the limited access to telecommunications for many Palestinians, the mail is a critical mode of communication for the Occupied Territories. Therefore, the control of the mail system by the CIVAD becomes, de facto, a form of information control, whether or not intentionally so. Notably, taxi services are often used as a means of transmittal for letters and other documents.

IV. ELECTRIFICATION

A. IMPORTANCE OF ELECTRIFICATION FOR DEVELOPMENT IN THE OCCUPIED TERRITORIES

Many villages in the West Bank are still without electrification and most have inadequate electrical power; this impacts on individual residents, health and social service delivery and the productive private sector, including industries and enterprises.

Settlement areas in the Occupied Territories have well-developed and fully functioning energy networks (including electrical and solar power), and they utilize electrification grids designed for Palestinian areas. The GOI currently devises and implements electrical and alternative energy systems for use only by settlers within the same geographic area as Palestinian communities. This is not a cost efficient use of scarce resources.

B. SECTORAL STATUS AND TRENDS

The first electrical company was established in Jerusalem in 1928. This company provided services throughout Jerusalem until 1948, when the GOI required that the services for West Jerusalem be provided by a separate company. In 1956, an additional company, Jerusalem District-Jordanian Ltd., was founded, with 2,000 shareholders and partnerships with six municipalities.¹² Electrification in the other areas of the West Bank proceeded after the early 1950s. The first electrical company in Gaza was constructed in 1950.¹³ Notably, prior to 1967, there were virtually no linkages among the municipalities with respect to their electrical units, with the exception of the linkages among the municipalities served by Jerusalem District-Jordanian Ltd.

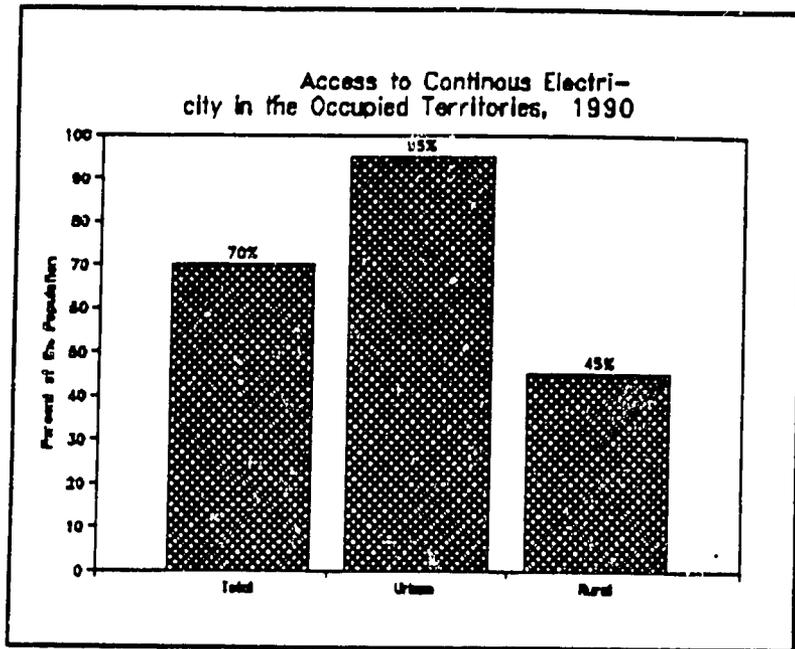
Since 1967, the GOI has, for the most part, tied electrical development in the West Bank and Gaza Strip to the Israeli grid.¹⁴ The CIVAD has refused to allow Palestinian municipal power companies to expand their capacity by installing new equipment or purchasing additional electrical supplies through the Israeli companies. Thus, in spite of the relatively early development of electrical power by public, quasi-public and private Palestinian companies, they have, since the Occupation, been restricted in their functions and now serve essentially as vehicles for the purchase of supplies from Israel, with minimal technical roles. Since 1988, the Jerusalem District Electricity Company has not been able to produce its own electricity, but rather purchases its supply from the Israel Electric Corporation. In fact, throughout the Occupied Territories, only less than 5% of electrical supply is produced by Palestinian companies.¹⁵ The fact that separate Palestinian electrical companies have independent power stations results in weak and inefficient power systems and poor economies of scale in the Occupied Territories.

The Palestinian companies are, however, required to supply electricity to Israeli settlements in their areas.¹⁶ Because of the control exerted by the CIVAD, municipal companies have little decision-making authority with regard to distribution of electrical supplies to Palestinian customers or to settlements. Cost/benefit and other issues, including energy conservation, are of little, if any, consequence in this context. The GOI has furthermore reduced or cut power to municipalities which have delayed payments to Bezek for electrical supplies. However, these charges, as well as those for individual residents and industries, are in dispute. The most recent (and current) example of this action has been in the Gaza Strip.¹⁷

As with communications, the Occupied Territories lag far behind Israel in the distribution of electrification in both urban and rural areas. While 95% of the urban population in the Occupied Territories are supplied by electricity continuously, less than half of the rural areas have continuous access; thus,

approximately 70% of the total population has continuous access to electricity. See Figure 2 below. Forty percent of rural villages have electricity for only a few hours each day; an estimated 25 rural villages in the West Bank (5% of villages) have no electrical supply.¹⁸ CIVAD has also disallowed most new electrification projects in rural areas.

Figure 2



Source: Israeli Statistical Abstract, 1991. Central Bureau of Statistics: Jerusalem; 1991.

It is difficult to arrive at precise estimates of the amount of electrical power used by industry, although the figure "10%" is most often cited.¹⁹ This estimate must be considered with caution; the lack of an adequate electrification grid in the Gaza Strip, for example, has resulted in industries locating in residential areas in order to utilize the electrification grid available in those areas. Not only does this make estimates of resident versus industrial use difficult (hindering planning for generation and distribution of supply), but it results in diminished supplies for residences as well as shortages for industries and enterprises. The latter impact limits productivity in various types of enterprises and industries. No specific, detailed study of residential/industrial electrical use has been conducted.

In spite of the significant increase in population in both the West Bank and Gaza Strip, available data indicate that energy consumption has actually decreased or remained stable in the Occupied Territories. This decrease has been felt most keenly by the industrial urban areas.²⁰ In the West Bank, actual peak load demand (measured in megawatts - MW) increased steadily from 1968 to 1985, then remained stable for a year before increasing to its highest level 106 MW. Since then, it has decreased to an average of 75 MW per year. However, this decrease is counterintuitive and reflects the difficulty in applying traditional approaches to assessment of demand and supply in a situation in which the supply is strictly controlled. When expansion is not allowed to take place to maintain a balance

between supply and increases in population, as well as changes in demand (which one would expect over a 25-year period), then "demand," as reflected in use data, is rendered meaningless. If all areas had access to continuous electricity, the total and per capita peak load demand data would necessarily be higher. Kittaneh has forecasted a peak load need of 454 MW in the West Bank and Gaza Strip by the year 2000, assuming continuous electrification of all urban and rural areas as well as an unspecified population increase.²¹

Among the problems in the area of electrification in the Occupied Territories (apart from those described above) are the following:²²

- * all of the power stations, with the exception of that in Jerusalem, are under the auspices of the local municipalities, and the control of distribution networks and of supply rests with the CIVAD, rather than with the electrical companies. As a result, distribution of electricity does not reflect true "demand;" nor is it possible for the companies to consider economic and conservation issues in the distribution of electrical power;
- * the companies have scarce finances to:
 - maintain or repair power stations and peripheral equipment (including transmission links, distribution transformers and substations) which have deteriorated as a result of inadequate funds, and
 - provide in-service training for technical staff, which impedes their ability to have adequate knowledge and skills with respect to new technological development or to enhance skills for use with older equipment; and
- * data are poor and misleading, severely hampering the ability of municipal and private companies to plan for energy development projects and to manage the systems currently in place. For example, although consideration of forecasted and actual peak load demands is important for the design, operation, and assessment of electrical systems,²³ as has been discussed above, the existing data are essentially useless for this purpose.

V. TRANSPORTATION

A. IMPORTANCE OF TRANSPORTATION FOR DEVELOPMENT IN THE OCCUPIED TERRITORIES

The importance of adequate transportation networks for the productive economy as well as social service delivery has been well documented. For example, improved roads "bring traders, truckers, and officials to villages ... and enable villagers to travel to markets and elsewhere."²⁴ According to the Organization for Economic Co-operation and Development (OECD), "the growth of the road transport sector is even more important for the countries' evolution from subsistence economies to market economies," and in developing countries in which neither railways nor inland waterways supplement the road system (as in the

Occupied Territories).²⁵ Notwithstanding the importance of an adequate road network for economic development, the condition of roads in developing countries is wholly inadequate. In one study, 26% of paved roads and 32% of unpaved roads were in "poor" condition and require reconstruction.²⁶ Unfortunately, the data presented in the OECD report aggregate data for the Middle East and Europe, limiting comparisons between the Occupied Territories' neighboring countries. A recent World Bank report on road infrastructure and economic development suggests that, "lack of accessibility or poor road conditions are barriers to agriculture, industry and trade, and may hinder the entire development effort. ... transportation development helps to attain an efficient distribution of population, industry and income."²⁷

Investment in road construction requires significant expenditures, but investment in road maintenance does not; further, as important as is preventive maintenance, its economic advantages are significant. According to Baum and Tolbert, the cost of road maintenance (1%-2% of the road capital stock) "seldom represents more than a fraction of annual government revenues from road users and, provided it is efficiently spent, it almost immediately pays for itself severalfold."²⁸

B. INSTITUTIONAL ARRANGEMENTS

In the West Bank and Gaza Strip, the transportation system is administered by four departments, each of which is linked with the Civil Administration. The four departments are:²⁹

- * the Higher Planning Council Committee and the Central Planning Department is responsible for planning and coordination of all transportation activities; these offices are based in Israel and staffed fully by Israelis;
- * the Public Works is responsible for construction and maintenance of roads outside of the urban areas, Public Works has a central office in the West Bank (headed by an Israeli military officer) and four regional offices; there is one office in the Gaza Strip, also headed by an Israeli military officer. In total, five Palestinian engineers are employed in the Public Works Department;
- * the Highway Traffic Department is responsible for traffic and safety regulation has one central office, headed by an Israeli military officer. One Palestinian engineer works in this department; and
- * the Licensing Department which is responsible for classification and registration of motor vehicles and registration and licensing of drivers. This department has offices throughout the Occupied Territories, all of which are headed by Israeli military officers.

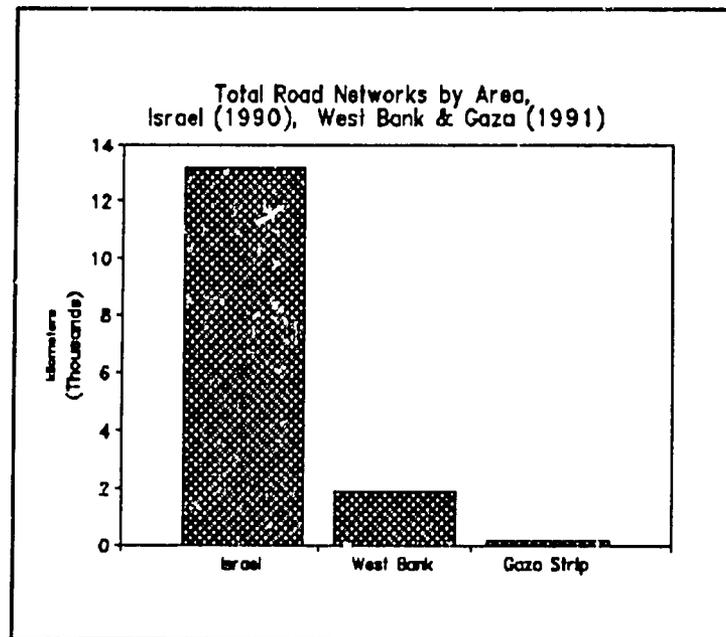
C. SECTORAL STATUS AND TRENDS

C.1 Road Network

Many external donors and researchers have pointed to the discrepancy between the limited road construction and maintenance undertaken by GOI in Palestinian areas and communities and the extensive highway and road grid constructed as a means of connecting Jewish settlements with one another and with Israel. Prior to 1967, the West Bank had a relatively well-developed road network which included linkages to the East Bank. Following the Occupation, the road network was developed to link the West Bank and Gaza Strip to the Israeli road system, with connections to Israeli urban centers and with a focus on linkages between settlements and major roads and highways.³⁰ In fact, according to Abu-Eisheh, only 367 km of roads were added to the network in the Occupied Territories since 1967, excluding settlement roads.³¹

As of 1991, there were 1,862 km of roads in the West Bank and 178 km in the Gaza Strip, not including agricultural roads. See Figure 3 that follows.³²

Figure 3



Sources:

For West Bank and Gaza: Abu-Eisheh, SA. A Development Program for the Transportation Sector in the West Bank and Gaza Strip. Unpublished report. Nablus: Al-Najah National University; 1991. Cited in Abu-Eisheh, SA. Transportation and Communications in the West Bank and Gaza Strip. Nablus: Al-Najah National University; 1992, p. 1-2.

For Israel: Israeli Statistical Abstract, 1991. Central Bureau of Statistics: Jerusalem; 1991, p. 509, Table 18.16.

This road network includes three classifications of roads:³³

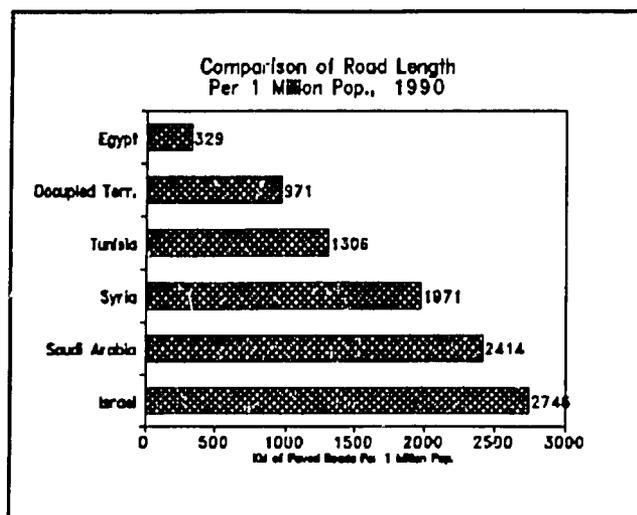
- * main roads (distinct two-way traffic with a minimum of one lane in each direction), comprising 568 km;
- * secondary roads (two-way roads which are generally narrower than main roads), comprising 562 km; and
- * local village roads (providing access between smaller towns and villages, having poor surface and shoulder conditions), comprising 979 km of local village roads³⁴ of which 69 km are unpaved.³⁵

In addition,

- * agricultural roads designed to facilitate access to fields and from fields to market (usually unpaved and seasonal) comprise approximately 900 km.³⁶

In 1990, Abu-Eisheh estimated that there were 61 villages in the West Bank with no paved access roads. This is in addition to smaller neighboring villages with no connecting roads. The total estimated population of these villages was 23,000 in 1990.³⁷ As of 1990, there were 13,181 km of roads in Israel, of which 7,790 km were urban roads, 1,303 km access roads and 4,088 km non-urban roads.³⁸ No towns in Israel lack paved access roads. In terms of road length per 1 million inhabitants, Israel had three times the road network of the Occupied Territories (2,746 km per 1 million population, versus 971 km). In terms of road length per one million inhabitants, a standard comparative indicator for road access, the Occupied Territories have less road access than any other country in the region with the exception of Egypt. In comparison, Israel has more than any other country and nearly three times the road network of the Occupied Territories. See Figure 4 on the next page.

Figure 4



Source: For Israel: Statistical Abstract of Israel, 1991. Central Bureau of Statistics, Table 1816; for the Occupied Territories: Abu-eisheh, SA. Transportation and Communications in the West Bank and Gaza Strip. Nablus: Al-Najah University; 1992; for all other countries: Queiroz, C. and Gautam, S. Road Infrastructure and Economic Development: Some Diagnostic Indicators. Washington, D.C.: World Bank; 1992, Annex 1.

In general, the condition of the road network in the West Bank and Gaza Strip is poor. According to a study carried out by Abu-Eisheh in 1989, approximately half of the paved roads were in a moderately to seriously deteriorated condition. The horizontal curvature of the roads dropped significantly, particularly in the mountainous areas; vertical slopes in these areas can be more than 10%.³⁹ Moreover, the narrow width of the existing roadways (with few shoulders for use in emergencies) require immediate correction, according to road maintenance experts.⁴⁰ Most of the roads also require improvements in vertical and horizontal alignments. The poor condition of the roads not only impairs transportation under normal circumstances but makes passage all but impossible when flooding occurs. There are minimal traffic control devices, driver education programs or other measures which reduce traffic accidents.

The only means of public transportation in the Occupied Territories are buses and taxis, both of which serve as inter- and intra-jurisdiction modes of transportation. According to the Statistical Abstract of Israel, there were 686 buses registered in the West Bank in 1990. In the Gaza Strip, there were 75 registered buses in the same year.⁴¹ However, a 1989 study of transportation in the West Bank found that only 360 of these buses were in operation.⁴² Notably, the number of registered buses increased by 35% in the West Bank during the period 1980-1990; only two additional buses have been registered in the Gaza Strip in the same period.⁴³ There are few central terminal facilities, even in the central areas of service in Jerusalem, Nablus, Hebron and Gaza City, and the buses do not operate on a fixed schedule.⁴⁴ As a result, 45%-80% of the inter-urban passengers use shared taxis, in spite of the higher cost.⁴⁵

In 1990, there were 1,088 registered taxis in the West Bank and 773 in the Gaza Strip.⁴⁶ Since the Occupation, the GOI has restricted the number of licenses allowed for shared taxis in the West Bank and Gaza Strip. As a consequence, the number of registered taxis has increased by only 23% in the West Bank from 1980 to 1990. The number of registered taxis in the Gaza Strip actually decreased during the same period, from 790 to 773.⁴⁷ At the same time, according to the Statistical Abstract of Israel, there was a 35% population increase in the West Bank and a 41% increase in the Gaza Strip.⁴⁸ This discontinuity between population growth and availability of the only modes of public transport severely strains the capacity of public transportation services and hampers movement in the Occupied Territories.

Perhaps because of concern for the cost of road construction, donor funding has been primarily for construction and improvement of rural access roads, although some urban roads have been constructed in the Gaza Strip. Abu-Eisheh notes that in most cases, the residents of the village in which the road construction was carried out contributed to the cost incurred. In addition, taxes collected by the GOI from the Palestinians are sometimes used by the GOI to contribute to the cost of road construction or repair.⁴⁹

C.2 Air, Rail and Water Transport

Before the Occupation, the only airport in the Occupied Territories was in Qalandia (north of Jerusalem). This airport, constructed in 1952, has since been under control of the GOI, which does not allow Palestinian use of the facility. The airport consists of one runway (medium-length) and a terminal but no other support facilities.⁵⁰ Regarding other modes of transport, there has been no railroad system in the Occupied Territories since before 1948. The minimal system which did exist earlier was largely dismantled after 1948.⁵¹

Until 1967, Gaza had a seaport with two small jetties used for trade ships and fishing boats. Since the Occupation, however, the GOI has not allowed the port to be used for shipping trade; it has also severely restricted deep sea fishing.⁵² Although there has been considerable interest in the construction of a port in Gaza, no cost-benefit analysis, or detailed feasibility study of such a project has been conducted.

Because Palestinians may not themselves ship goods from airports and seaports in Israel, the only mechanism currently available to Palestinians for export of goods is the road network which provides access through Israel and Jordan to the other export markets.

VI. DONOR INVOLVEMENT IN INFRASTRUCTURE

Various United Nations (U.N.) agencies, private voluntary organizations (PVOs) and Palestinian and Israeli research institutes have described the need for significant investment in the construction, upgrading and maintenance of infrastructure facilities. This investment is necessary not only to ensure that basic services are available, but to ensure that economic growth can be attained. Importantly, investment in public and quasi-public infrastructure (e.g., electrification, communications) can also generate revenues.

Notwithstanding the identification of needs in the Occupied Territories by these agencies and the dependence of Palestinians on donor agencies for road construction and maintenance and for electrification, donor funding for such projects has been minimal. The primary sources of funds for infrastructure development have been the Arab states, the U.N. and A.I.D.⁵³ No donors have invested in the communications sector, which is controlled and operated by the GOI.

Few external donors have invested in electrification, although A.I.D. has contributed to the development of the electric cooperatives in the Hebron Region (through Agricultural Cooperative Development Institute (ACDI), with a membership of 3,000. A.I.D. has expended approximately \$3,479,300 in road construction in the West Bank and Gaza Strip, primarily through Catholic Relief Services (with a total of \$2,924,300 in road projects between 1980-1991) and Save the Children (with a total of \$555,000 in road projects between 1980-1985).⁵⁴ The International Christian Society (ICS) has also participated in road development projects, but no data are available with regard to the types of projects they have supported or the level of funding. The Jordanian-Palestinian Joint Committee (which is funded by Arab states) supported development programs in the West Bank and Gaza Strip from 1982 until 1988. During this time, they funded road construction and repair projects totalling \$13.7 million, primarily focusing on roads within urban areas and villages and on agricultural roads.⁵⁵

VII. CONSTRAINTS TO IMPLEMENTATION OF INFRASTRUCTURE PROJECTS

In addition to the paucity of financial resources available with respect to all three physical infrastructure subsectors addressed in this report, two types of constraints impede their development. These constraints (bureaucratic and human resources) impact on the design, development and implementation of infrastructure projects and on the ability of Palestinians working in the sectors to ensure sound financial management. The constraints are summarized below.

A. BUREAUCRATIC AND ECONOMIC

A number of bureaucratic actions on the part of the GOI with respect to transportation, communications and electrification have hampered the development of these sectors and have severely strained the capacity of these systems to provide adequate services to the Palestinians in the Occupied Territories.

- * *Absence of development plans.* The GOI has disseminated no development plans with respect to the provision of basic infrastructure which relate specifically to the Palestinian population in the Occupied Territories. The road network plan devised in the early 1980s concerns only access to settlements; the infrastructure projects included in the list of "essential" projects for the Occupied Territories (prepared and distributed by the GOI in 1991) does not consist of a development plan.
- * *Use of Donor-Funded Infrastructure Projects by Settlements.* There are no assurances that infrastructure projects will not be within a settlement area in the future; and
- * *GOI Review of Infrastructure Projects Supported by Donors.* GOI approval for road construction or repair projects can be (and has been in many cases) delayed for months or years, and approval is not assured. Moreover, changes are often made in the design of these projects which restrict their utility for the target population(s). U.S. PVOs have had many projects denied, including, for example, six road projects submitted by one PVO during the period 1988-1991. No reason was given for the disapprovals.

B. HUMAN RESOURCES

In both the West Bank and Gaza Strip, there is a severe shortage of trained personnel in each of the infrastructure sub-sectors, especially semi-skilled and skilled labor and managers. Moreover, as a result of the paucity of continuing education programs available for trained professionals (e.g., engineers, urban or land planners), the skills found in the Occupied Territories are often outdated with regard to the rapidly changing technology in the areas of communications and electrification. No basic or advanced training is available to communications and transportation professionals, although several universities and private research organizations are considering developing the capacity to provide such training.

A number of factors are determinants of the inadequate training available for personnel working in physical infrastructure; for example:

- * The GOI places restrictions on the participation in training programs to which CIVAD employees might have access and on the type of training that can be provided by technical schools to Palestinians (whether or not they are CIVAD employees). For example, they are not allowed to train Palestinians in certain communication and electrification technology, even though these technologies may be work-related.

- * Training institutions (e.g., vocational schools and universities) are constrained by the GOI from importing certain types of equipment for use in training in communications and electrification, even if the equipment is provided by donors. This further limits the degree to which skilled workers and professionals trained within the Occupied Territories are capable of utilizing the advanced technology which currently forms the basis of the telecommunications and energy fields.

C. LACK OF RESOURCES FOR USE OF NEW TECHNOLOGIES

The municipalities have scarce resources to plan for or initiate demonstration projects for use of alternative sources of energy which could conserve scarce resources. In addition, few donors have invested in the design and application of alternative energy sources for the Occupied Territories or in training of Palestinians in the development and management of such appropriate technologies. This results in the Palestinians being largely dependent on electrification as their energy source for both residential and industrial use. Limited examples of donor-funded alternative energy projects include the use of solar energy for greenhouses in both the West Bank and Gaza Strip and for heating water supplies and the recently-completed feasibility study of the use of solar and fuel-cell supplemental power systems in remote villages.⁵⁶ While it is not possible to predict whether or not the CIVAD would approve of such projects, it certainly would appear to be in their interest to do so, given that scarce energy and financial resources would be conserved. Palestinians could build on the significant technological advances developed or implemented in Israel, which for example, is noted for its use of solar energy.

VIII. CONCLUSIONS AND RECOMMENDATIONS

A. DEVELOPMENT OPPORTUNITIES

As with other development programs in the Occupied Territories, investment in physical infrastructure must both build on the availability of highly educated Palestinians (now largely unemployed or underemployed) and develop an institutional capacity that will be useful for development notwithstanding the political circumstances. To what degree do the required skills now exist in the West Bank and Gaza Strip? What will be the lag time to train and develop such personnel? The fact that Palestinians have worked extensively in the construction industry in the West Bank and Gaza (including the construction of settlements and settlement roads) and, importantly, in Israel, may indicate that skilled labor may be available, but the availability of technical and management personnel is less certain. However, the return of Palestinians who have worked in managerial positions in various components of infrastructure in the Gulf States may well avert one of the most common problems faced by developing countries; that is, the shortage of skilled workers such as engineers, surveyors, estimators, foremen, and equipment operators, which impedes the successful design and implementation of physical infrastructure projects.

In addition to extending the physical infrastructure systems to ensure adequate coverage of the population and to meet needs for the productive private sector, and enhance the capacity of human resources in this arena, it is necessary for the Occupied Territories to move forward in the direction of sustainable growth. Baum and Tolbert describe the need for public support for projects which can comprise the development of a technological infrastructure.⁵⁷ As adapted for the Occupied Territories, these are:

- 1) development or enhancement of the capacity of municipalities and quasi-public institutions for testing, standards and quality control;
- 2) development or enhancement of the capacity of universities and other research institutes to conduct multidisciplinary basic and applied research and technology development programs, including administrative mechanisms for their funding and management;
- 3) development or enhancement of the local engineering and consulting industry, with municipalities, quasi-public entities and the productive private sector as the user community; and
- 4) support for linkages among Palestinian public and private sector organizations involved in infrastructure and for linkages between these organizations and comparable organizations in the U.S. and countries in the Middle East (ME) region. Such linkages could facilitate, for example, the development of standards for construction quality and worker safety for use in all of the subsectors of infrastructure.

At this time, the beneficiaries of these services are Palestinians working for municipalities, quasi-public and private sector companies involved in the physical infrastructure subsectors (communications, electrification and transportation) and research and training institutions. Investment by donors in these areas would also provide an opportunity to build linkages across sectors as part of a broadbased development strategy. Development of these capacities eventually could be used to generate income both for the research and development institutions and for public or quasi-public companies responsible for physical infrastructure.

Such projects require a sustained political commitment and a "substantial measure of autonomy for the public institutions involved and a commitment to quality in staff and performance."⁵⁸ Under the current circumstances, such sustained commitment and autonomy for public institutions is not possible. However, if donors were to consider medium and long-term gains, investment in projects which have the potential to improve sustainability of projects and conserve scarce resources would be of interest. Even under the present situation, donors could contribute to each of these types of projects, thereby providing essential capability for the present and a foundation for development in the future.

The GOI makes minimal investment in physical infrastructure in the Occupied Territories (encouraging donors to do so), the donors have scarcely funded these areas (and do not seem inclined to support physical infrastructure which will benefit the productive private sector, with the exception of agricultural roads) and

Palestinians have little, if any, means of supporting such projects. Moreover, while there is substantial interest in the involvement of the private sector in infrastructure development in the West Bank and Gaza Strip (and although this is essentially necessitated by the lack of a national government), extensive research and development projects undertaken by the World Bank have shown that labor-intensive technologies have not attracted the interest of private sector contractors, who have been concerned about such issues as pricing distortions, escalation of wage levels and inadequate funds to support the cash flow requirements of a large-scale physical infrastructure project.⁵⁹ The reality is that, at some point, some entity will have to support large-scale physical infrastructure if the economy of the Occupied Territories is to grow.

A key issue to be addressed is the degree to which support should be provided to enhance the existing administrative infrastructure by improving the capacity of existing municipal and quasi-public personnel to manage electrification, communications and transportation systems and providing other support such as improved (or newly developed) information systems. This is critical, because, as Uphoff suggest,

"... while it has limitations, local government usually appears to be the most promising base for developing and maintaining rural infrastructure, especially if it can be supplemented by some form of local organization."⁶⁰

However, he points out that "one of the conditions for an effective [local government] role in infrastructure is that it have a predictable resource base ... crucial for operation and maintenance, which are essential for deriving benefits from any infrastructure."⁶¹ This is currently not possible in the Occupied Territories, but this could change in the event of autonomy or independence. However, Palestinians (and the donors) must address the question of the most appropriate public/private mix of involvement in infrastructure planning and management. While the private sector usually plays a more limited role in decision making with regard to public goods infrastructure projects,⁶² the capacity which existed until the mid-1970s on the part of the Palestinian private (or quasi-public) sector could be revised and updated. Membership organizations (e.g., cooperatives) also play a key role, but according to Uphoff, in general they "appear better at one-time activities where resources of money or labor are mobilized for a specific task."⁶³ As in other countries, cooperatives in the Occupied Territories have the potential to mobilize local resources to expand infrastructure at the local level, but they have not demonstrated that they have the capacity to respond to needs of the broader population (i.e., other than their own members) or to adequately manage the resources available to them.

Finally, the use of physical infrastructure projects as a means of jobs' creation has historical precedent and is increasingly seen as an option in countries with increasing unemployment (including the U.S.). In the Occupied Territories, road construction has been a mechanism for jobs' creation, as Grossman and Derman point out:

"In the first years which followed the Israeli takeover (1967-1970) there was concern about the problem of high unemployment in the West Bank. Road construction was one of the means for providing jobs ... Between 8,000 and 10,000 daily jobs were provided, but the work was not steady. The workers were deliberately laid off periodically, and the labor force was 'rotated' in order to benefit as many people as possible. Pay was low and progress was slow. The main emphasis in this period was on improving existing roads."⁶⁴

B. RECOMMENDATIONS

Communications, a vital link for economic development, must be improved in the Occupied Territories, with as much attention as possible paid to this subsector in the immediate term. Newer technologies (e.g., cellular systems) have significantly reduced the cost of expansion of telecommunications networks over the past few years, and the U.S. private sector, a leader in the telecommunications field, can contribute importantly to the development of this subsector in the Occupied Territories. For example, the Trade and Development Program (TDP) could facilitate the (partially subsidized) sale of telecommunications equipment and the provision of technical assistance to the Palestinian private sector, pending any political change. Arrangements could be made for private U.S. telecommunications companies and for the Communications Workers of America (CWA) to provide technical assistance and training, as they do in Israel and elsewhere. Donors should enter into policy dialogue with the GOI in order to obtain approval for the expansion of telecommunications networks throughout the West Bank and Gaza Strip. They should encourage the GOI to invest in expanding telecommunications systems in the Occupied Territories, unless or until there is political change in the Occupied Territories and a sufficient tax base (or other funding) is in place to support such expansion.

Electrification is also vital for economic development in the Occupied Territories; and donors have already contributed to the expansion of electrification in the West Bank and could make additional important contributions through the support of alternative energy demonstration projects and the development of regional plans for electrification (and power in general). Such plans should include the involvement of municipalities, community-based organizations, industrial organizations, economic development non-government organizations (NGOs) and others as appropriate. As with communications, donors should enter into policy dialogue with the GOI in order to obtain approval for donor support for the expansion of the electrification grid. Priority should be given to those villages with no electrical source and, secondarily, for those without continuous electricity. They should encourage the GOI to invest in expanding electrification systems in the Occupied Territories unless or until there is political change in the Occupied Territories and a sufficient tax base (or other funding) is established to support such expansion.

A comprehensive energy plan is urgently needed for the Occupied Territories, one which would take into account the various alternatives (e.g., solar and wind

power) and one that assumes an integrated grid within (if not across) the West Bank and Gaza Strip and linkages with the existing Israeli grid. If energy and financial resources are to be conserved, economies of scale must be taken into account. Sufficient resources must then be invested to ensure adequate supply of electricity for residential, public (and social) service and productive private sector use. Such investment might be used, for example, to add power stations and implement research and development projects for alternative sources of energy. It is also imperative that engineers and technicians currently working in the field receive continuing education to ensure that they are adequately trained in the design, development and maintenance of recent advances in electrification as well as newer energy technologies.

Immediate support for construction of agricultural roads and those linking villages with no existing road network and upgrading and maintaining existing road systems would both provide jobs (albeit temporary) and improve transportation for the public and for the productive private sector. Much discussion has centered around the possibility of donor investment in a seaport in Gaza. However, Baum and Tolbert have pointed out that "although the foreign trade of developing countries can be expected to continue its rapid growth, construction of new ports or, of additional berths in existing ports is likely to be justified in relatively few countries in the near future."⁶⁵ Pending review of a recent feasibility study carried out by Tel Aviv University⁶⁶ and other studies which may now be underway, the most appropriate utilization of development resources may be to ensure direct access by Palestinian shippers to existing ports and to expand the capacity and improve the efficiency of operations of these ports if necessary to meet shipping needs. This would seem to call for regional cooperation between Gaza and both Jordan and Israel with respect to port facilities and militate against investment in a port in the Gaza Strip.

Table 1 summarizes conclusions with respect to infrastructure in the West Bank and Gaza Strip, as well as related recommendations. The recommendations are intended as examples for those involved in development planning for the Occupied Territories. They should be considered in light of the discussion on overall development opportunities in the Occupied Territories included in *Visions of a Sustainable Future*--Appendix II to this report.

TABLE 1
CONCLUSIONS AND RECOMMENDATIONS

Conclusions

1. It is essential that Palestinian professionals and skilled workers have the capacity to plan, execute and manage physical infrastructure projects which utilize the most appropriate advanced knowledge and technology available, within resource constraints.

Recommendations

1.1 Municipal and private sector employees who are currently or who may potentially be responsible for the planning and management of physical infrastructure in the Occupied Territories require substantial training in planning and management. This includes short-term local and overseas training and limited graduate (masters level) training. Such training should be accelerated if autonomy is assured and Palestinians assume responsibility and authority for physical infrastructure.

1.2 Computer-based information systems necessary for the effective and efficient planning and management of infrastructure projects should be developed. This would necessitate support for design or adaption of required programs, provision of hardware and training of a cadre of personnel in the use of such systems.

1.3 Improve capacities at Palestinian universities, technical schools and research institutes to develop and implement continuing education projects (and certification/standards).

1.4 Donors should support educational visits by Palestinians to developing countries in which innovative approaches to development and management of infrastructure projects have been successful. This would help them to learn appropriate, lower cost techniques which may help to reduce their dependency on external donors.

2. The existing road system is inadequate, both in extent and condition. This severely hampers the productive private sector.

2.1 Donors should support the construction and repair of agricultural access roads, of road networks in rural areas which are identified as having urgent needs, and of roads in areas which are identified as requiring road expansion or improvement in order to expand trade. If autonomy is assured and Palestinians assume responsibility and authority for physical infrastructure, donors should expand support for road networks, particularly those which support the productive private sector and improve access to social services and new residential areas.

2.2 In order to help ensure that road networks respond to clearly identified needs and to enhance the likelihood that they will be maintained, donors should support the development of mechanisms for community involvement in the planning of road construction projects. Donors should also support the development of regional level transportation plans for both the West Bank and Gaza Strip.

3. The communications system in the Occupied Territories is wholly inadequate, hampering the delivery of social services, the capacity of the productive private sector to sustain current activities and to expand their operations, and the "normal" communications among a population.

3.1 Training of Palestinians employed in the communications subsector should be expanded and improved in order to ensure that even under the present restrained circumstances, communications function at the maximum level possible.

3.2 If Palestinians assume responsibility and authority for physical infrastructure, donors should support the development of improvements in the existing communications networks and expansion of services, utilizing the most advanced (low-cost) technologies available. Such expansion could be partially supported by user fees and would be expected to be fully supported in the long term.

4. The electrification system in the Occupied Territories is wholly inadequate, hampering the delivery of social services, the productive private sector, and normal geographic access among the Palestinian population.

4.1 Donors should immediately support the expansion and improvement of training for Palestinians employed in the electrification subsector.

4.2 Donors should continue to support the expansion of electrification services to ensure that, at a minimum, all Palestinian villages have continuous access to electrification by whatever mechanism is most cost-efficient (i.e., through connection with the Israeli grid or independent generators).

4.3 Prior to expenditure of donor funds on expansion of electrification, a region-wide assessment of electrification needs should be conducted; such an assessment should recommend the most appropriate technology(ies) under the existing and alternative circumstances.

4.4 If Palestinians assume responsibility and authority for physical infrastructure, donors should support the development of region-wide grids and improvements in existing electrification networks, utilizing the most advanced and efficient technologies available.

4.5 Donors should immediately support the development/adaptation and implementation of alternative sources of energy, utilizing for example those technologies which are available in Israel and Jordan. Such projects could be implemented in villages with no access to electricity and in planned industrial zones.

5. While initial construction of physical infrastructure in Israel and the settlements in the Occupied Territories is fully funded by the GOI, and maintenance and use is at least partially subsidized by the GOI, few resources have been made available for construction and maintenance in the Occupied Territories. For Palestinians the unit cost of communications and electrification services is higher than for Israelis and settlers. Moreover, Palestinian public, quasi-public and private sector organizations have not had decision-making authority with respect to planning or management of physical infrastructure projects. Thus, it is highly unlikely that expansion of services to meet urgent needs will be self-sustaining for the immediate or medium term.

6. A number of GOI policies limit the degree to which economies of scale can be achieved and the maximum utilization made of scarce resources available for both Israel and the Occupied Territories.

5.1 Donor agencies and governments should engage in policy dialogue with the GOI with respect to provision of basic physical infrastructure services and differential rates charged to Palestinians, Israelis and settlers for equivalent services.

5.2 Palestinian public, quasi-public and private sector organizations involved in the management and planning of physical infrastructure services and projects need to improve their financial management of such services and projects. Donors should provide assistance toward such improvement, including the development of appropriate fee structures for communications and electrification.

6.1 Donors should engage in policy dialogue with the GOI with respect to:

- 1) direct access to Israeli seaports and the Qalandia airport (with the latter being expanded if the GOI agrees to access);
- 2) provision of automatic telephone communication services to rural areas currently served by manual exchanges, and
- 3) provision of postal services in all villages.

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APPENDIX I

CONTEXT OF DEVELOPMENT IN THE OCCUPIED TERRITORIES

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CONTEXT OF DEVELOPMENT IN THE OCCUPIED TERRITORIES

This appendix describes the overall context in which development opportunities exist in the Occupied Territories, including land size and population data, governance, recent economic trends and the role of donors in development activities. As necessary, these factors are discussed in more detail in each of the reports included in the full set of sector analyses for the Occupied Territories. For example, population data are discussed more fully in the companion report on Health, and economic trends are described in the separate reports on Finance and Credit and on Trade.

Several parameters of this report should be clarified. The term "Occupied Territories" is used to describe the geographic area of the West Bank and Gaza Strip as it is the accepted term for the U.S. government and U.N. agencies. It refers only to the West Bank and Gaza Strip, not to the Golan Heights or the Israeli security zone in Lebanon. The term Judea and Samaria is used when quoting Israeli statistics or other references, as this is the designation used by the GOI for the West Bank area. Unless otherwise stated, the West Bank statistics, information and recommendations presented in this report include East Jerusalem. Where necessary, East Jerusalem is referenced separately, for example in cases where data have clearly excluded East Jerusalem. It must be noted at the outset that the statistical data available from the GOI (i.e., those published in the Statistical Abstracts and other governmental sources) which can be used to numerically describe the sectors do not include East Jerusalem. This significantly skews the data and inhibits analysis of trend data which could be used for economic planning. Moreover, as Benvenisti has suggested,

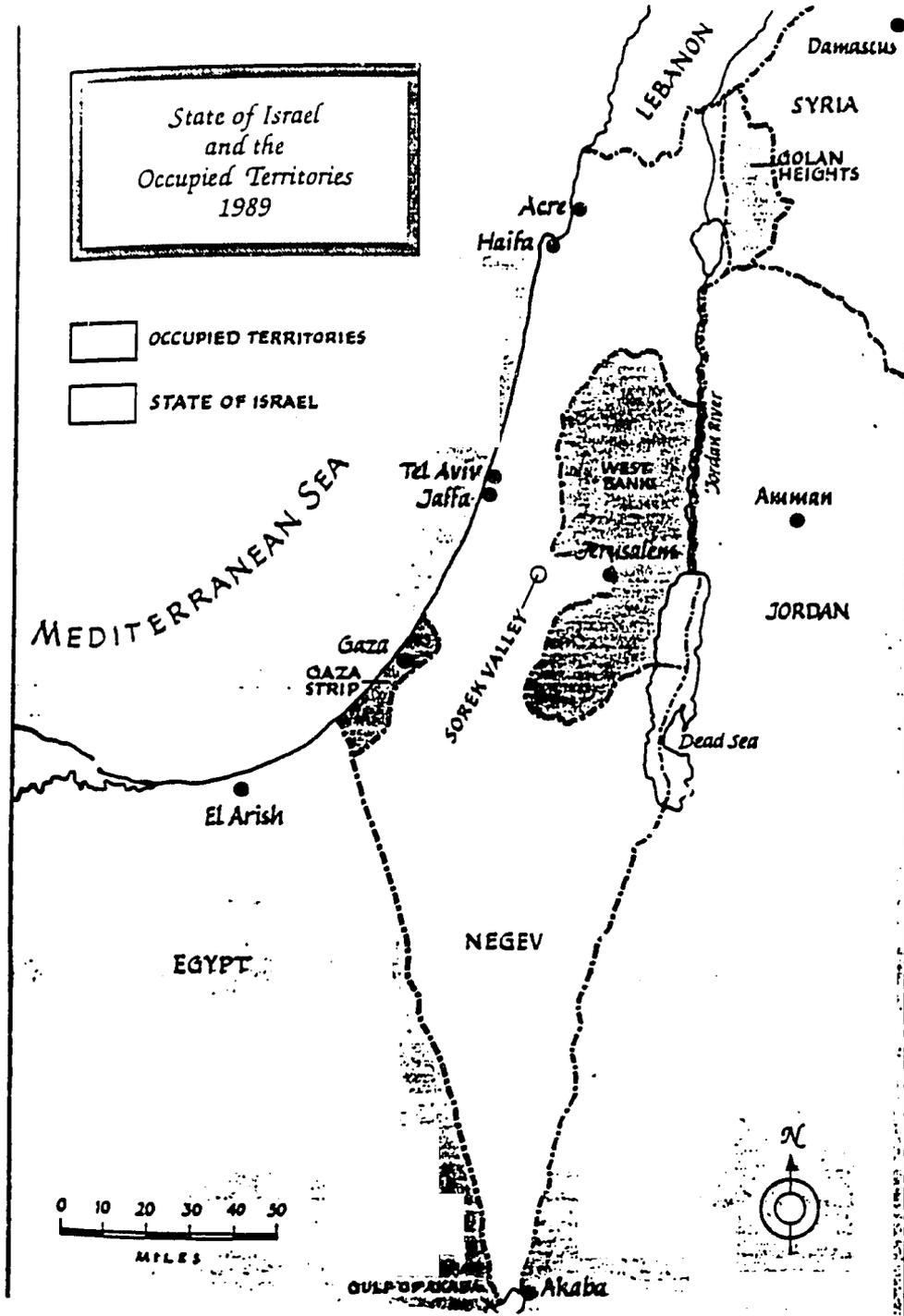
"For statistical purposes the West Bank and Gaza Strip are considered by Israel's Central Bureau of Statistics to be units independent of Israel. Economic activity there is investigated and reported as though it constitutes a 'national economy' united with Israel in a 'common market.' The official reporting of GDP, GNP, exports and imports and balance of payments of the territories is, however, inaccurate at best and misleading at worst. The daily, complex, economic interaction over the nonexistent 'green line', lacking any effective monitoring and control, calls the reliability of the statistics into question."¹

Unfortunately, because of the serious impediments faced by Palestinians and others in conducting empirical studies in the West Bank and Gaza Strip, most studies of the Occupied Territories depend primarily--and necessarily--on GOI statistics, notwithstanding their limitations.

Finally, although Israeli settlements in the Occupied Territories have considerable impact on economic and social development in the area, only minimal data and information are available with respect to either plans for settlements or specific factors pertaining to individual sectors (e.g., infrastructure and industry).

A. THE LAND AND THE PEOPLE

The West Bank and Gaza Strip are bordered by Israel, Jordan and Egypt as shown in Figure 1. The total land area of the Israeli-occupied West Bank and Gaza Strip (as defined by pre-1967 borders) is 5,939,000 million dunums (one dunum = .23 acres) of which 5,572,000 are in the West Bank and 367,000 are in the Gaza Strip.²



Source: M. Kunstel and J. Albright, Their Promised Land. Crown Publishers, Inc., New York; 1990.

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According to the U.N., as of 1985, approximately 52% of this land was under Israeli control—that is, within the jurisdiction of the GOI or of Israeli citizens (settlers). Estimates of Israeli control of land as of early 1992 are shown below:³

Source of Estimate	West Bank	Gaza Strip
Al Haq	65%	50%
Land and Water	67%	50%
PHRIC	70%	52%

Because the most recent census was conducted twenty-five years ago (in 1967),⁴ accurate demographic data for the Occupied Territories are virtually impossible to obtain. Thus, all population data have been estimated for the period after the 1967 census. The three primary sources of information regarding population are the Central Bureau of Statistics (CBS), the Ministry of the Interior (MOI) and estimates prepared by the Jordanian Medical Association in 1986. In the summary of demographic and other data published by Benvenisti and Khayat in 1988, it was noted that the Palestinian population data presented by the CBS and by the MOI for the Occupied Territories differ. For example, the data for 1987 showed CBS estimates of a total Palestinian population of 858,000 for the West Bank, while the MOI estimated the population to be 1,252,000.⁵ The CBS estimates exclude East Jerusalem, which has a Palestinian population generally considered to be approximately 150,000.

Using the Statistical Abstract of Israel for 1990 as a basis, and assuming a 3.5% annual growth rate in the West Bank and a 4.5% annual growth rate in Gaza, the following estimates were calculated for 1991:⁶

West Bank (including East Jerusalem)	1,104,799
Gaza Strip	<u>1,010,640</u>
Total:	2,115,439

More than 35% of the Palestinian population is rural (see Figures 2-4), with 15% living in villages with populations of 2,500 or less. The Palestinian population is also a youthful one; nearly half (47.4%) of the Palestinian population in the West Bank is under the age of 15, as is 49.5% of the population of the Gaza Strip.⁷ This age distribution and the high birth rates have important implications for social service needs as well as for labor force concerns.

Figure 2

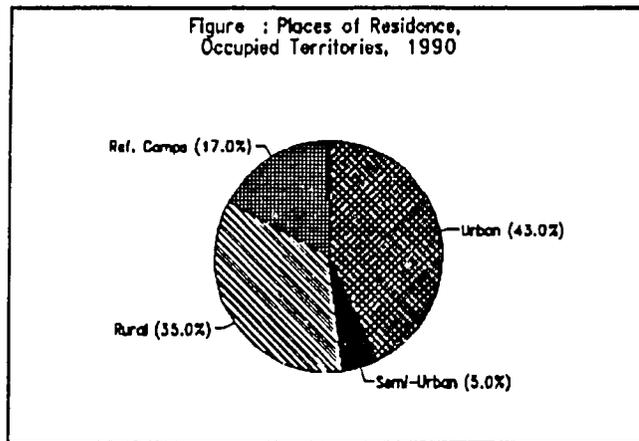


Figure 3

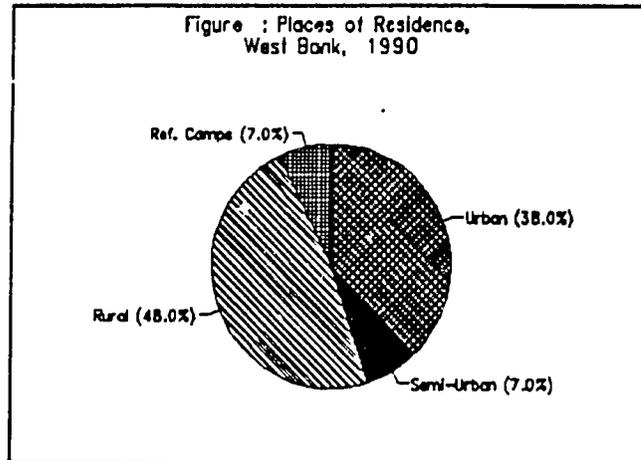
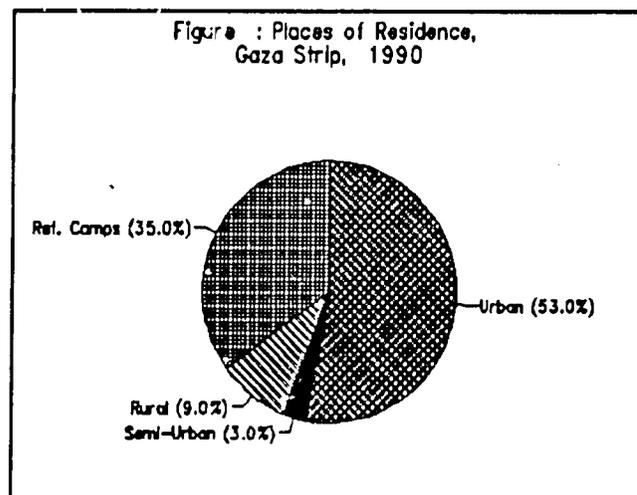


Figure 4



Source: Calculated from: Statistical Abstract of Israel 1990. Central Bureau of Statistics: Jerusalem; 1990.

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As of January, 1992, 451,695 individuals (or approximately 40% of the population) in the West Bank were registered as refugees. Of these, 119,172 (26%) lived in UNRWA camps. In the Gaza Strip, 549,675 Palestinians were registered refugees (approximately 80% of the population); of these, 302,977 (55%) lived in UNRWA camps.⁸

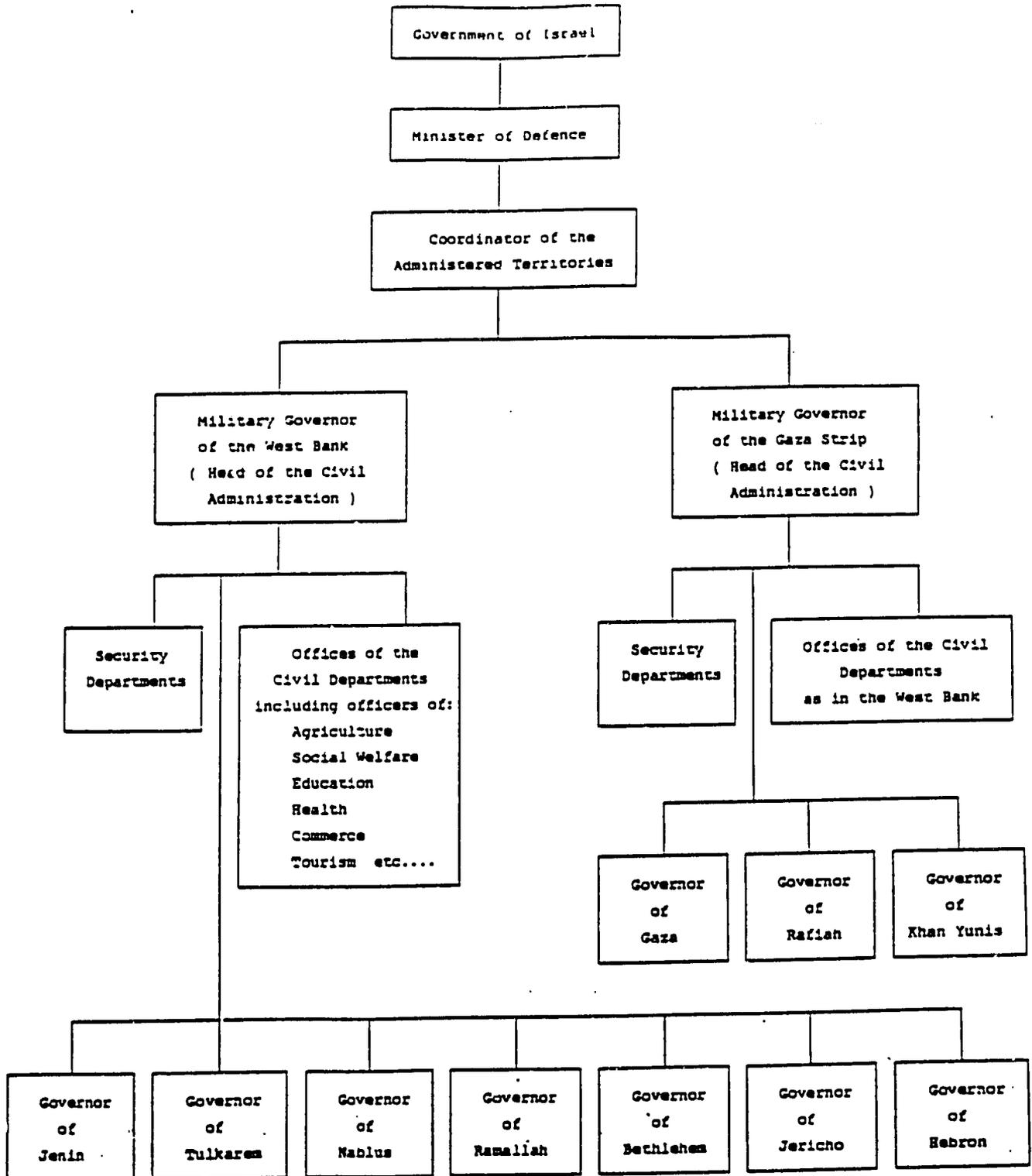
In spite of the high natural rate of increase, until 1991 the population had a relatively low rate of population growth. This resulted from emigration to Jordan, the Gulf States and outside the region, primarily for job opportunities. Even prior to the Gulf War and the influx of Palestinians from the Gulf States, an important population variable in the Occupied Territories, and particularly in Gaza, was the number of residents who returned from the Gulf States annually for summer vacation. It is reported that approximately 100,000 were doing so in the Gaza area for 2-3 months each year; no estimates of similar temporary residents were available for the West Bank. Since the Gulf War, an estimated 25,000 to 35,000 Palestinians have returned to the Occupied Territories from the Gulf States; an estimated 40% of them are currently residing in the Gaza Strip.⁹ Most are university graduates but are unemployed or underemployed. However, those who are unemployed reportedly are not eligible for social benefits from the GOI. Some are eligible for services through UNRWA.

B. GOVERNANCE IN THE OCCUPIED TERRITORIES

From 1950 to 1967, the West Bank was under the authority of the Jordanian government, which in 1955 devolved public administration authority to elected municipal governments. From 1948 to 1967, Gaza was under Egyptian control, with appointed municipal governments. Subsequent to the 1967 War, the Israeli military authorities assumed control of the Palestinian population in the occupied West Bank and Gaza Strip. Since 1967, no local elections have been held in Gaza; no municipal elections have been held in the West Bank since 1977.

In 1981, the Israeli government initiated a system of civil administration (CIVAD). Figure 5 on the following page shows the organizational structure of the CIVAD. The CIVAD's "jurisdiction includes all the civil powers of the military government but not the authority to enact primary legislation, which has remained in the hands of the Military Commander."¹⁰ In virtually all CIVAD offices, a military officer directs the departments, but Palestinians comprise most of the technical and administrative staff. According to the Fourth Geneva Convention, the GOI is responsible for the provision of public services for the Occupied Territories, based on tax and other remittances from the Palestinians residing in the West Bank and Gaza Strip and from the GOI budget. These governmental functions are carried out by the CIVAD, with specific responsibility for sectoral programs being coordinated with the relevant Israeli ministry or regulatory body.

FIGURE 5: ORGANIZATIONAL STRUCTURE OF THE CIVIL ADMINISTRATION (CIVAD)



Source: "Food Security in the West Bank and Gaza Strip," Oct 1985, p.4.
Arab Scientific Institute for Research and Transfer of Technology (ASIR);
El-Bireh, West Bank.

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The CIVAD currently serves as the "authority" in most municipalities in both the West Bank and Gaza Strip--no municipal elections have been held since a military order suspended elections in December, 1977.¹¹ Some municipalities have Palestinian officials appointed by the CIVAD, but their authority is limited. Local municipalities carry out activities which in other circumstances would be either public or private sector responsibilities. These range from wholesale produce markets to operating slaughterhouses. In doing so, they liaise with both the CIVAD and Palestinian private sector organizations as appropriate and necessary. For all intents and purposes, both CIVAD and the municipalities therefore constitute "public" agencies in the Occupied Territories. Village councils, of which there are approximately 75 in the West Bank and eight in the Gaza Strip, have even less authority than municipal councils. As with the municipalities, no elections have been held for village councils since December, 1977.¹²

Chambers of Commerce also perform services which in other contexts would be within the purview of governmental or quasi-governmental bodies. For example, they are involved in expediting approval of exports to Jordan (see the companion Trade report for further discussion of their role in export). Elections for Chambers of Commerce were not held from December, 1977 until early 1992, when the GOI allowed such elections in six areas in the Occupied Territories.¹³

C. RECENT TRENDS IN THE ECONOMY OF THE OCCUPIED TERRITORIES

According to some reports, the economies of the Occupied Territories began to decline in the early 1980s. This decline resulted from stagnation in the Israeli and Jordanian economies.¹⁴ The economy further declined in the late 1980s, even prior to the Gulf War. UNCTAD reported in 1991 that their review of Israeli and Palestinian data indicated "a rapid deterioration in the performance of the economy of the Occupied Territories during 1988-1990."¹⁵ According to that report, the gross domestic product (GDP) for the Occupied Territories decreased by 12%/annum during the period, to just over \$1.2 billion in 1990. Consistent with previous patterns, the decline in the Gaza Strip was more severe than in the West Bank: 17% versus 11%, respectively.¹⁶ Gross national product (GNP) decreased by a comparable amount annually (11%), to approximately \$1.8 billion. Per capita GNP was estimated to be \$1,400 in the West Bank and \$780 in Gaza in 1990.¹⁷ By comparison, the GNP in Jordan for 1989 was \$1,730.¹⁸ In Israel it was \$10,920 in 1990.¹⁹

With the exception of agriculture, all sectors exhibited significant decline in the period 1988-1990; for example, according to the 1991 UNCTAD report, industrial output decreased by an annual average of 14%, and construction decreased by an annual average of 23%. Other sectors combined (public and personal services, trade, transport and communications) declined by 17%.²⁰ As a consequence, the contribution of the agricultural sector to the GDP increased from 25% to 31% from 1988-1990, while construction decreased from 17% to 14%; industry has remained at 9% of GDP (although output had decreased). The UNCTAD reports that the decline in the industrial sector "bodes ill for the future of the Palestinian economy."²¹ It should be pointed out, however, that several researchers have suggested that traditional economic indicators (e.g., GNP, per capita GNP, GDP)

are not appropriate for the Occupied Territories as they have been devised to study productive economies. Given that the West Bank and Gaza Strip depend largely on transferred resources, the limitations of these indicators should be considered.²²

The New Israeli Shekel (NIS) is the currency used predominantly in Occupied Territories, although the Jordanian dinar (JD) is still used by some in the West Bank. As of January, 1992, the rate of exchange was NIS 2.3/US \$1 for the Shekel and JD 1/US \$0.68 for the Jordanian dinar. Given the inextricable ties between the economies of the West Bank and Gaza and those of Israel and Jordan, pricing and inflation in these two countries have a significant and deleterious impact on the Occupied Territories. Several key examples of recent impacts are:

- * increased prices for goods imported through Israel, which accounted for 91% of goods imported into the West Bank and 92% of goods imported into the Gaza Strip in 1986, the most recent year for which data are available;²³
- * decline in the wages of Palestinians working in Israel and a decline in real disposable income of most income groups in the Occupied Territories (an example of the deleterious impact of Palestinian wages' being tied to the Israeli economy); and
- * the differential in the consumer price indices of the Occupied Territories and Israel, which has led to both 1) a decrease in value of sales of Palestinian goods to Israeli buyers, and 2) an increase in purchase by Palestinians of consumer and durable goods from Israel (until the economic boycott of the Intifada, when this practice decreased considerably).

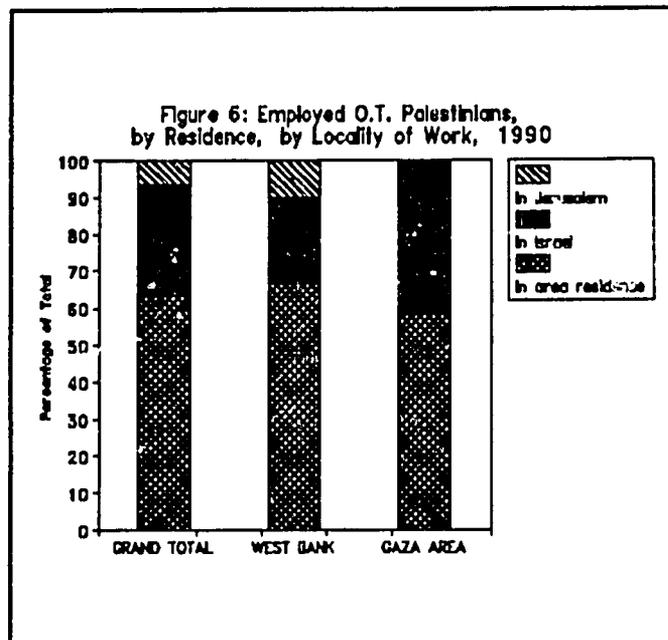
The economic impact of the Gulf Crisis on the Occupied Territories was—and continues to be—significant in all sectors. As the 1991 UNCTAD report noted, the economic impact resulted from both external and internal pressures; these are summarized below:²⁴

- * reduction in private remittances from Palestinians working in the Gulf states, estimated at \$120 million to \$340 million annually prior to the Gulf War;
- * involuntary return of Palestinians working in the Gulf states to the Occupied Territories resulting in increased pressure on an already distressed job market;
- * decreases in both public and private financial support from the region for Palestinian private sector development in both social services and productive enterprises (this support was estimated to be \$150 million in 1989); and
- * disruptions in traditional export and import markets (note: the market share in Jordan had begun to decline prior to 1991²⁵).

The total estimated economic impact of the Gulf War (based primarily on lost remittances, transfers and exports) was between \$250 and \$750 million in 1990 alone (55% to 80% of the total generated by these three sources in 1989), or approximately 10% of gross national disposal income.²⁶ Few knowledgeable individuals believe that there have been substantial moves toward an improvement in the economy of the Occupied Territories since the end of the Gulf War.

Estimates of current unemployment rates vary considerably. Israeli statistics for 1990 show a 13%-15% unemployment rate (including both those officially registered at the CIVAD labor exchanges and those defined by the Central Bureau of Statistics as "employed persons, temporarily absent from work"). Other estimates of unemployment in both the West Bank and Gaza Strip range between 30% and 40% of the work force.²⁷ While Palestinians now have regained minimal access to the Gulf States as a source of employment (and remittances), they are still dependent on employment in Israel (see Figure 6 below), although this alternative for export of labor capital is also highly volatile. As a result of reduced personal income, there has been a concomitant reduction in consumer demand (estimated 20-30% reduction)²⁸ and reduced funding available for investment.

Figure 6



Source: Israeli Statistical Abstract, 1991. Central Bureau of Statistics: Jerusalem; 1991.

Reductions in local funding available for investment are particularly critical for economic development in the Occupied Territories because between 70% and 95% of capital investment in industry in the Occupied Territories is provided by the individual owners or their families. Importantly for economic development, the period 1988-1990 saw a 4% annual decrease in private investment.²⁹ Moreover, the external trade sector has not yet shown signs of improvement since the end of the Gulf War, in spite of efforts to re-establish economic relations with traditional trading partners in the region. Exports of both goods and services decreased an average of 30% per annum during 1988-1990, with the decrease far more dramatic in the Gaza Strip (50%) than in the West Bank (16%).³⁰ Imports of goods and services also declined during this period: 16% in the West Bank and 19% in the Gaza Strip.³¹ As of the beginning of 1992, markets outside of Israel remained largely closed to Palestinian products, and the decreased purchasing power of Palestinian consumers continues to result in decreased imports available for Palestinians and decreased internal markets for Palestinian products as well.

D. DONOR ASSISTANCE

In addition to remittances from Palestinians working abroad, the economies of the West Bank and Gaza Strip depend to a large extent on donor countries and organizations, each of which has its own particular interest in the Occupied Territories and therefore directs the aid in a particular way. In 1991 alone, \$69 million in funding was allocated by donors for projects in the Occupied Territories.³² This figure does not include funds provided by Arab states, as these data are difficult to obtain. A large proportion of donor funds are allocated through international private voluntary organizations (PVOs). Therefore, while the amount of donor funds allocated to the Occupied Territories appears large in proportion to the GNP (in 1991, the UNRWA budget alone accounted for 6% of GNP), a relatively large percentage of the funds do not directly enter the economy of the Occupied Territories. Much of the bilateral and multilateral funding remains in the country of origin to purchase goods and supplies which are donated to beneficiary groups in the Occupied Territories, or to pay for training and technical assistance. Similarly, while the "overhead" rate of the international agencies (e.g., UNRWA) and the international PVOs is relatively low (usually representing 20% - 45% of the total project budget), this does represent funds which are not part of the economy of the Occupied Territories. It should be emphasized that, in this respect, the West Bank and Gaza Strip do not differ from most other recipients of donor funds. However, in view of the fact that such funding is crucial for operation of basic human services and support of infrastructure in the Occupied Territories, it becomes a more critical issue. Moreover, there is little flexibility in the allocation of funds within the Occupied Territories: donor funding and other types of development assistance by international and bilateral agencies such as the World Health Organization (WHO), the UNDP and A.I.D., must be carried out by the donors and agencies with the approval of the GOI.

The importance of the economic role of UNRWA cannot be overlooked. In 1990, its annual budget for the West Bank and Gaza Strip was \$98.6 million. In 1991, the UNRWA budget was \$98.3 million; the approved 1992/1993 budget is \$217.8 million (roughly \$109 million per year).³³ In addition, from 1988 to 1991, approximately \$949.9 million has been contributed to UNRWA, primarily by the

U.S. and European governments, to operate refugee camps and to provide services to the refugees under its aegis. Approximately 40% of these funds are utilized for the West Bank and Gaza Strip.³⁴ Until recently, UNRWA has expended only minimal funds for economic development projects. However, the agency plans to raise \$20 million over the next five years for income-generating projects in the Near East.

It is important to distinguish between the ultimate source of external funds (e.g., governments and private donors to non-profit organizations) and the vehicles through which such funds are disbursed. The most important sources of external aid have been:

- * individual Palestinians in the diaspora, who contribute to a variety of organizations and institutions (as distinct from the remittances sent by individuals to their families in the Occupied Territories);
- * Arab governments and individual Arabs, contributing to:
 - individual Palestinian organizations and institutions, including municipalities;
 - the Joint Jordanian-Palestinian Committee for the Steadfastness of the Palestinian People in the Occupied Homeland;
 - the Palestinian Liberation Organization (PLO); and
 - various U.N. agencies operating in the Territories, including the UNRWA and UNDP.
- * the U.S. Government, which disburses funds through:
 - various U.N. agencies operating in the Territories, including the UNRWA and UNDP;
 - the Agency for International Development (A.I.D.) Jordanian Development Program (until 1989); and
 - U.S. private voluntary organizations (PVOs) operating in the West Bank and Gaza Strip and one Palestinian PVO.
- * private U.S. individual donors and foundations, providing funds to:
 - individual Palestinian organizations and institutions; and
 - U.S. private voluntary organizations operating in the West Bank and Gaza Strip.

- * European, Canadian, Japanese and other governments, which provide contributions to:
 - individual Palestinian organizations and institutions;
 - the European Community (EC); and
 - various U.N. agencies operating in the Occupied Territories, including the UNRWA and UNDP.
- * European individual donors and foundations, which provide contributions primarily to individual Palestinian organizations and institutions.

Understanding the nature of the sources of external funds is important to an understanding of the dependency of the Palestinian economy on the vagaries of external conditions. Ultimately, the U.S. and European governments and Arab states (and, increasingly Japan) are the major sources of funding. The major funding vehicles, including the several U.N. agencies and the U.S. PVOs, derive their funds from the same sources, governments and a few foundations and individuals.

For the most part, external funds have been provided for:

- * construction of health and social service infrastructure projects and some housing,
- * operating costs for health and social service programs (and lately for rehabilitation services, more popular during the height of the Intifada),
- * agricultural cooperatives,
- * municipalities (for construction and operating costs),
- * human resources development and training, including local and overseas long-term and short-term education, and
- * infrastructure and public works.

With the exception of agriculture, minimal donor funds have been provided for the productive private sector.

It is hoped that this sector analyses, and the others which comprise the cross-sectoral assessment of development opportunities in the Occupied Territories, will contribute to the efforts of Palestinians to be more proactively involved in planning for and implementing donor-funded projects. The reports may also contribute to donors' plans for more appropriate--as well as more effective and efficient--use of the resources they allocate for the Occupied Territories.

11

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APPENDIX II

VISIONS OF A SUSTAINABLE FUTURE

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APPENDIX II: VISIONS OF A SUSTAINABLE FUTURE

This appendix to the sectoral analysis presents a summary assessment of the overall potential for development opportunities in the Occupied Territories. The analysis was conducted within sectors, and, insofar as possible, across sectors. This assessment is based on the analyses and conclusions presented in each of the individual sector reports prepared by Policy Research Incorporated (PRI). The eight individual sector reports include agriculture, education, finance and credit, health, industry and enterprise, infrastructure, trade, and water and sanitation.

Appendix II includes 1) a discussion of alternative assumptions under which economic and social planning will likely occur in the Occupied Territories; 2) a summary of the factors which constrain development across the sectors; 3) a summary of recommendations within and across the sectors; and 4) a list of issues that warrant discussion in the process of considering development alternatives for the Occupied Territories. Brief summaries of the findings of each of the sector reports are included as Executive Summaries with those reports.

A. DEVELOPMENT IN THE CONTEXT OF ALTERNATIVE SCENARIOS

The move toward Palestinian economic self-reliance expanded considerably with the advent of the Intifada in 1987. Generally, the intent of this movement has been to promote a more productive allocation of investments, both internally (Palestinian) and externally (from donors). Specifically, Palestinians involved in development planning have sought to "enhance self-reliance in production, lessen dependence on external financial sources, diversify, rationalize and integrate domestic production branches, [and] reorient consumption patterns towards less conspicuous modes."¹ To this end, Palestinians have begun to 1) develop sectoral and regional plans; 2) design and implement experimental projects and new institutional forms and entrepreneurial initiatives; and 3) initiate a range of popular 'participatory development' efforts involving families, communities, regions, cooperatives, enterprises and professional associations.

In order to ensure that these sectoral analyses are as useful as possible for development planning, the recommendations summary recommendations presented in this appendix are listed assuming one of two alternative political scenarios:

- 1) no change in the current political status (with perhaps some relaxation of constraints), including programs and activities that could have short-, medium- and long-term impact without respect to a change in governance; and
- 2) a change in governance (e.g., interim self-government or autonomy).

There are, of course, many shades within this spectrum, but it is hoped that presenting the recommendations in this way will provide an option for discussion of development in the Occupied Territories. The development recommendations that assume the status quo are intended to meet immediate needs identified in the conclusions to which they are linked as well as to provide a foundation for

development under whatever political solutions are realized. They are thus building blocks toward a sustainable future under alternative political scenarios. It should be emphasized that the recommendations listed under "assuming political change" could also be carried out within a status quo scenario, but would likely necessitate elimination or significant amelioration of existing bureaucratic and other constraints.

Under the present circumstances, it is all too easy to assume that little can be accomplished other than minimal support for existing projects; this approach defeats the intention to promote sustainable development. On the other hand, to assume independence (statehood) as the only basis for planning economic and social development negates the reality of the present political situation (that is, of the Occupation) as well as the possibility of an interim self-government. It also does not take into account that, even in the event of autonomy, it will be necessary to design phased implementation of policies and programs. For example, it will be necessary to ensure that:

- * a Palestinian tax system as well as an organized health system are in place before assumption of responsibility for financially burdensome public hospitals;
- * economic support structures are in place prior to significant expansion of industrial capacity;
- * cross-regional planning is in process, including the consideration of issues such as the trade-offs necessary between agricultural and industrial development in the water-poor Gaza Strip; and
- * Palestinian planners and donors develop effective plans for physical infrastructure and other projects, ensuring that they will be used by their intended beneficiaries (i.e., Palestinians) given the possibility that such projects could be established within settlement areas in the future.

In any case, donors should accept the possibility that their medium-term and long-term (and even many short-term) development expectations could be considerably diminished under the present circumstances, even in the event of autonomy. In this most abnormal political situation, the traditional indicators of change--difficult to obtain, verify and attribute to donor programs under any circumstances--are of questionable validity and utility.

B. CONSTRAINTS TO DEVELOPMENT IN THE OCCUPIED TERRITORIES

Sustainable economic development is proving to be an elusive goal even under "normal" circumstances in developing countries, and increasingly so for countries of all income levels. As this and the companion sectoral analysis reports demonstrate, the socioeconomic situation in the Occupied Territories do not approximate normal circumstances. Given the status of the various sectors of Palestinian economy and society, and in particular given bureaucratic and other impediments, what are the opportunities for economic and social growth and

development in the West Bank and Gaza Strip? The technical and managerial issues are myriad and complex, both within and across sectors.

While this is true in any country or jurisdiction; however in the Occupied Territories these issues are complicated by the volatile and fluid political realities and by the significant dependence on external donors for support for any type of development. Donor investment and support are, in turn, complicated by the fact that the traditional role and involvement of donors in developing countries has been severely limited in the Occupied Territories. The normal mechanisms for rational allocation of donor assistance (e.g., donor negotiations with a ministerial level planning agency or external donors' department within a Ministry of Finance) do not exist, while constraints to planning effective use of donor funds are apparent.

It is important that those involved in planning for development in the Occupied Territories be aware of the constraints under which the various sectors operate and within which development occurs. The constraints which pertain to each of the sectors are described in the corresponding section of each sectoral analysis, with a discussion of the manner in which the constraints impact on development in that specific sector. However, several types of constraints have especially broad impacts on development; these are summarized below.

B.1 Bureaucratic constraints

Bureaucratic constraints include GOI regulations which discriminate against Palestinians and their public (municipal) and private sector institutions and organizations. These regulations are subject to change (sometimes without notice) and to enforcement by individual members of CIVAD without approval (or knowledge) of their superiors. Examples include:

- curfews (sometimes imposed for extended periods of time),
- barriers to physical mobility constituted by pass requirements and other factors,
- onerous procedures for obtaining building and other permits and arbitrary application of such procedures,
- taxation policies and enforcement which have been perceived by the International Jurists Commission and others as inappropriate and a violation of Geneva Conventions,
- restrictive labelling and export requirements on Palestinian products, and
- control of and restrictive policies with respect to basic physical infrastructure including electrification, communications and transportation, water use, and land use.

An important impediment to effective planning and implementation of development programs and projects is the fact that all those involved in development planning, including Palestinians and donors, lack access to critical fiscal, economic and technical information which is collected, processed and maintained by the CIVAD (or the GOI). While some information is available to Palestinians and others through the Central Bureau of Statistics (and other sources), other critical information is not. This includes, for example, revenue and expenditure information which is critical for an understanding of operating costs and cost recovery possibilities within the health and education sectors. Palestinians (and donors supporting projects in the Occupied Territories) also have no information with respect to plans for settlement areas, including plans for physical infrastructures to support the settlements.

The complex mixture of residual laws (in force at the time of the Occupation), Israeli civil laws and regulations and military regulations vastly complicate development planning and implementation of specific projects and general sectoral programs. Virtually all court cases involving Palestinians are adjudicated in the military courts, including all civil cases (e.g., with respect to contracts and taxes). The effective absence of a civil court system makes it all but impossible to formulate and enforce contractual arrangements.

Palestinians have no adequate mechanism to generate revenues and provide public services. As a result, Palestinian NGOs and municipalities operating health and social programs or public infrastructure systems (e.g., water and sanitation, road networks, electrification) face unusual obstacles in attempting to cover their operating costs and adequately maintain physical plants and equipment.

There have been some positive indicators that GOI constraints have relaxed since 1991. In late 1991 the GOI initiated relaxation of restrictive policies which impede economic development, including: approval of licenses for a number of new small- and medium- scale manufacturing, agricultural and commercial projects and relaxation of restrictions on the inflow of external financial resources by raising the limits on such inflow per person entering the Occupied Territories--from \$400 to \$3,000.²

It may well be that international organizations (e.g., the U.N.) and bilateral and other donors can convince the GOI that relaxation of other bureaucratic constraints is beneficial to the economies and social structures of both Israel and the Occupied Territories. Simultaneously and independently, the international organizations and donors should work with the Palestinians (and Arab states) to ensure that, insofar as possible, constraints that result from Palestinian practices and the policies of Arab states are ameliorated or eliminated. Finally, the U.S., and other countries should remove constraints imposed by their governments or apply policies which would encourage development (e.g., labelling and most favored nation status). These governments should also ensure that their investment policies and programs are consistent both internally--that is, within the bilateral program--and externally--that is, between and among the various donor agencies and organizations. Donor investment policies should also be consistent, insofar as possible, with available development plans generated within the Occupied Territories.

B.2 Economic and other constraints

Given the inextricable linkage with the Israeli economy, from which the Occupied Territories derive questionable benefit, there is, effectively, no free external market, and a severely limited free internal market. Moreover, the public (GOI) and private (Israeli and Palestinian) environment is not, to say the least, conducive to sustained economic development. The economic and physical infrastructures and systems on which development normally depends range from grossly inadequate to nonexistent. In addition, the Occupied Territories have few natural resources, a shortage of water and an increasingly diminishing land area.

The local work force, which in the past served as an important source of income (through export of labor to the Gulf States and other countries) is unbalanced with respect to education and training. That is, a large (though not specifically defined) proportion of Palestinians are highly educated but underemployed professionals or skilled and semi-skilled workers who have only minimal access to training that would enable them to become updated on technological advances.

Since the onset of the Gulf crisis, the "safety-valve" of Palestinian emigration to the Arab Gulf has been closed, and Palestinians have returned to the Occupied Territories or to Jordan. As a consequence, remittances from the Arab Gulf, on which the Palestinian economy was heavily dependent, have been significantly reduced. As a result of the extremely limited opportunity to engage in external trade and the virtual absence of support structures for economic and social development (e.g., marketing systems for agricultural and industrial trade), Palestinians have little competitive advantage, with the exception of their low-scale wages, which have some negative socioeconomic consequences as well.

Development and implementation of potentially effective national and regional level plans require a governmental base through which to link sectors and public/private sector initiatives and programs. It also requires data and information as well as experience in the selection and application of planning techniques. However, neither the CIVAD nor the municipalities (which together constitute the de facto public systems in the Occupied Territories) plan and implement programs and projects across sectors. Nor do most Palestinians working in these entities have substantial experience in such cross-sectoral planning and program and project management. Not only have they been minimally involved in the design, use and application of data and information systems, they have also had little access to data and information required for planning and managing public and private sector organizational structures and functions.

Physical infrastructure (communications, electrification, and transportation networks) and water and sanitation systems are in poor repair and wholly inadequate. This severely impedes operation and expansion of the public and social service sectors and the productive private sector. Moreover, political and economic factors impede the efficient linkage of critical physical infrastructure such as electrical, communications, and road networks.

Unfortunately, as discussed in the individual sector reports, the political situation in the Occupied Territories militates against investment in private sector economic activities which may have the greatest potential for economic impact, as well as in social or physical infrastructure projects which take into consideration economies of scale. With respect to the latter (which include, for example, telecommunications, electrification and health services), this limitation has fostered wasteful and costly duplication. It has also hindered the ability of Palestinian institutions and donors to provide adequate basic services for the population as a whole and for the industrial sector in particular. For example, Palestinians are prohibited (for security reasons) from using much of the extensive road network which serves settlers, although access to these roads would facilitate access to markets. Similarly, electrification projects (largely funded by donors) have focused on electrification of the smaller villages, rather than on ensuring that industries have access to services adequate to meet their production needs.

The present economic outlook. The worsening economic situation in the Occupied Territories bodes ill for development opportunities. Extensive development is difficult for projects that rely on private sector initiative, as well as those that rely on public (municipal) initiative. At the same time, the relatively young, disaffected (and unemployed) youth can potentially both participate in social unrest and contribute to social and economic change.

C. DEVELOPMENT OPPORTUNITIES

Even given these constraints, however, substantial improvement can and should be made in economic and social development in the Occupied Territories. It is critical that Palestinians and donor agencies rationalize the existing scattered projects within and across sectors. This rationalization must include identifying linkages across sectors that can improve the likelihood of development under both the status quo and potentially changed political and administrative circumstances.

Table 1 presents a summary of recommended programs by sector for both the status quo and political change scenarios. The recommendations for the political change option are in addition to those for the status quo, which are intended as building blocks for development, whether or not positive political change is achieved. The recommendations were devised based on the needs identified in each of the sectors independently. It should be noted that because detailed recommendations are included in each sector analysis report (e.g., education, health, industry), the recommendations in Table 1 are abbreviated in order to present them in a tabular format. Also, the term "public" or "quasi-public", as used in Tables 1 and 2 and in the following discussion, refers to municipalities and to other entities that undertake activities that under normal circumstances would fall within the purview of public (or quasi-public) entities (e.g., local water authorities). The recommendations are not presented in priority order.

An assumption supporting all recommendations is that donors would utilize local (Palestinian) resources wherever possible, as well as appropriate and cost-effective resources from the region (including Israel and Jordan, for example) and from donor countries (e.g., the U.S., Japan and Europe). Donors are encouraged to include a wide range of community-based and other organizations in order to

provide them with the opportunity to participate in comprehensive development across sectors and to promote broad-based support for such development among these groups.

To prepare for specific plans within and across sectors, to derive maximum benefits from available resources, in the Occupied Territories, and to promote sustainable development, Palestinians and donors involved in supporting development in the Occupied Territories should: 1) identify overall development goals and specific objectives, 2) assess the relative utility of alternative development approaches, 3) consider the cross-impacts of the development goals and specific programmatic foci and projects within and across sectors, and 4) set priorities for projects within and across sectors. Whenever possible and appropriate, donors should assist Palestinian organizations in this planning process.

To provide an example of how the interrelationships among project proposals and objectives can be considered, Table 2 presents each specific sector recommendation identified in Table 1 and indicates the specific objectives for development to which the project or activity would contribute. These general and generic development objectives were identified from two sources: the most recent World Bank reports.³

A review of the recommendations presented in Table 2 makes it clear that there is a consistent pattern across the sectors and across the objectives. Review of this pattern might be useful for those involved in considering a rationalized development approach for the Occupied Territories. The principal foci of recommendations across sectors are:

- * strengthen the capacity of Palestinian quasi-public and private sector institutions and organizations to plan, manage and evaluate policies, programs and projects at the national, regional and local level through:
 - selecting and improving access to and use of information resources both internally (within the Occupied Territories) and externally;
 - providing technical assistance, training (for managerial and technical staff) and other support for the enhancement or development of quasi-public and private sector institutions and organizations that are responsible for or are involved in economic and social infrastructure support systems (e.g., water and sanitation, quality control, marketing systems, civil courts, tax collection and social welfare. This would include, for example, assisting in the definition and adaptation of standardized procedures; and
 - improving education and training at the primary through university levels, including vocational/technical training, and literacy, self-instruction and distance (remote) learning programs.

- * improve the development, diffusion, use and assessment of technology in the quasi-public and private service and productive sectors through:
 - providing technical assistance and training to enhance the selection and use of equipment and of new procedures (technologies) in agriculture, industry, health and education and physical infrastructure, including assessment of the economic, social and environmental impacts of new technologies and procedures;
 - providing grants and loans (as appropriate) for the purchase of equipment which has been demonstrated to be useful and appropriate for enhancing productivity or effectiveness in the sector to which it applies (e.g., new technologies in crop production, cardiovascular disease prevention and treatment or alternative energy sources); and
 - providing grants and loans (as appropriate) to enhance the capacity of Palestinian universities and research institutions to develop and/or adapt appropriate technologies for use in the West Bank and Gaza Strip and for export (including, for example, computer software).
- * improve management of, access to and use of credit and financial resources, through:
 - training of existing personnel in banks and credit institutions;
 - technical assistance and other support to improve management of bank and credit institutions;
 - facilitating loans through international and regional development banks and private sector financial institutions; and
 - supporting the development of credit circles and other locally based organizations which foster savings and loan arrangements for local development.
- * improve the collection, analysis and distribution of data and information for use in quasi-public and private sector programs and projects, through:
 - training in data and information management;
 - technical assistance and other support for the development of clearinghouses and information systems in each primary economic and social sector (e.g., agriculture, industry, water and sanitation); and

- encouraging the provision of relevant data sets from the GOI to Palestinian public and private institutions.
- * improving the physical infrastructure which supports both quasi-public and private sector services and productive enterprises, including, for example, communications, electrification and transportation networks;
- * strengthen health and social welfare services which are critical for human growth, development, welfare and performance and are linked to a society's economic development; and
- * encourage effective and efficient use of energy resources and prospective protection of the environment in the process of economic, and particularly industrial expansion.

D. DEVELOPMENT ISSUES IN THE OCCUPIED TERRITORIES

A number of complex issues must be faced by those involved in development planning for the Occupied Territories. This section of the appendix briefly summarizes several of those issues.

Linkages Across Sectors. While it is true that devising plans for economic and social development in the Occupied Territories is difficult under the present circumstances, the opportunity nonetheless exists for the design and enhancement of public and private sector systems which avoid the problems of entrenched bureaucracies and make the most effective use of Palestinian entrepreneurship and community and support networks. All too often it is necessary to prepare development plans in the context of bureaucratic structures which are not disposed to interact with one another (e.g., the Ministry of Health with the Ministry of Agriculture) or with the private sector (e.g., industry with public environmental agencies). In the virtual absence of such bureaucratic structures at the regional (i.e., West Bank or Gaza Strip) level, the potential exists to plan for the most effective and appropriate use of limited resources for Palestinian development. Moreover, donors and Palestinians have a unique opportunity to establish incremental programs and projects on which broader or more extensive development can be based both within and across sectors. For example:

- educational and training programs can be devised in light of short-, medium-, and long-term economic development plans in general and industrial expansion and agricultural trade specifically;
- innovative approaches to expansion of health services and to health promotion and disease prevention can be devised in recognition of and in cooperation with the productive private sector (e.g., workplace-based PHC and prevention activities); and
- support for industrial expansion and infrastructure development can be linked to appropriate and efficient use of natural resources and designed to promote protection of the environment.

Benefiting from Israeli Experience. The factors of development in the Occupied Territories place them at a significant disadvantage with their primary trading partners--Israel and Jordan--and this has been seen primarily as negative with regard to development. However, opportunities exist for the Occupied Territories to learn from the experience of their most successful trading partner, Israel, as well as to learn from their specific economic interaction with that country. For example, educational and training opportunities in the Occupied Territories stand in stark contrast to those available in Israel. As the Israeli economist Aharoni has noted, human resource development in Israel has been a foundation of economic development. He states that "The long-term competitive advantage of Israeli firms is largely a function of their ability to exploit unique human capital capabilities."⁴ Israeli investment in the educating and training its population is exemplary. Palestinians and donor organizations which support development in the Occupied Territories should consider adaptation of applicable Israeli educational and training policies and programs to their development plans.

Addressing development policy questions. The current situation in the Occupied Territories also provides the opportunity for consideration of broad-based policy issues which entrenched bureaucracies often avoid facing. The policy questions that should be considered by Palestinians, donors and other involved in planning for development in the Occupied Territories include, for example:

1. Given that there no mechanism exists to ensure coordinated planning across sectors, what are the opportunities to ensure (insofar as possible) intra- and inter-sectoral linkages and decision-making for sustainable development? Such linkages include, for example, investment in productive industries which are not environmentally hazardous and in crop and livestock production which places minimum burden on land and water resources. A related consideration is that given the importance of integrated planning and the inherent difficulties in achieving it under the current circumstances, what should be the priority projects for the immediate (1-3 years), medium (3-5 years) and long-term (5-8 years)?
2. What will/should be the relative priority of public social and economic infrastructure systems (e.g., unemployment insurance, welfare, public health, social security/pensions as well as quality control and testing of medicines, protection of the environment, etc.) vis-a-vis investments in the productive private sector (e.g., tax benefits for private investment, public support for physical infrastructure for industrial zones)?
3. What contributions should donor agencies (bilateral, multilateral and private) make to improve the capacity of public services (e.g., health, education, physical infrastructure), pending a political resolution? Should such contribution include, for example, training the existing or an emerging cadre of municipally-based physical infrastructure employees (communications, electrification, transportation and water and sanitation) and/or investment in physical infrastructure projects themselves? What should be the relative priorities of investment in education and investment in improvements in technologies in the public and private sectors? While human resources development (education and training) is necessary (and a traditional investment role by itself), it is simply insufficient and could

lead to problems of social and/or economic instability if the economy does not soon rebound. Moreover, focusing exclusively on human resource development (in particular on degree training) has the disadvantage of requiring a long lead time before impact on economic development is realized.

4. What is the most appropriate and feasible degree of centralization/decentralization of public and quasi-public services, given cultural/geographical realities and practical economic and administrative considerations? What role could/should donors play in planning and preparing for centralization or decentralization of such services?
5. What is the most appropriate role for donors with respect to investment in the productive private sector? Given that the mechanisms used in both market and mixed economies to encourage investment and jobs creation are minimal (at best) in the Occupied Territories, what should donors do to assist in "jump starting" the economy in the Occupied Territories? What investments should be made in the cooperatives, which have (for all intents and purposes) assumed the role of quasi-shareholding for-profit companies, competing with privately held companies? Donors have supported the cooperatives extensively but have provided little support to the private sector. Should donors now provide financial support to privately-held, productive private sector companies comparable to such support provided to private companies in the U.S., Europe and the Pacific Rim (e.g., the U.S. government's Small Business Innovation Program)? Should donors work with the international banking community to facilitate loan guarantees to the private sector in the Occupied Territories for industrial development? To what degree should donors encourage or discourage small-scale enterprise in lieu of investments in medium- and large-scale industrial enterprises?
6. What should be the role of donors in preparing for assumption of certain public services (e.g., health, education, tax, regulatory and court systems)? On the one hand, there is considerable pressure for the Palestinians to assume responsibility for the social systems (e.g., health and education) in spite of the fact that they are not now responsible for the governmental systems with which those social service systems are inextricably linked (e.g., tax and regulatory systems). On the other hand, creating the basic (non-physical) infrastructure required for assumption of these responsibilities could consume a large proportion of the current donor allocation for the Occupied Territories.
7. Given that current policies of many donors, including the European Community and A.I.D. (as well as the World Bank, which has had representatives at the multilateral economic discussions), encourage privatization of services which are currently owned or managed by the public sector in some countries (e.g., electrification, transportation, communications, health), what investment should be made in municipal control of such services in the Occupied Territories? What rationale is there for such investment versus investment in encouraging private sector ownership/management of such services? Donors should be consistent in

their policies--if they support private sector development in the Occupied Territories, they should be prepared to invest in, or facilitate such development.

8. Given the current deteriorating economic situation what is the realistic potential for donors to consider immediate support for a large-scale public works program? Such a program--which could be comparable to that of the Civilian Conservation Corps (CCC) in the U.S. in the 1930s (and presently under consideration for adaptation by the incoming U.S. administration) focus on small- and medium-scale physical infrastructure projects (e.g., farm to market roads and environmental clean-up or protection). Moreover, the economic crisis would seem to call to developing a formalized social safety net--the absence of which helps to foster social disequilibrium in the Occupied Territories. Such a safety net could be comparable to those being designed by the World Bank for several developing countries; however, such programs require large infusions of financing--are donors prepared to provide such financing?

E. TOWARD SUSTAINABLE DEVELOPMENT

The small population base of the Occupied Territories and other factors suggest that economic growth depends on export-oriented industry and domestic service enterprises (e.g., tourism); this builds on the historical mercantile tradition of Palestinians. In any case, such development must be as diversified as possible (and as practical), in order to lessen the dependence on one or another source of financing for economic development. It must also be based on improvements in the capacity of Palestinians to compete in the increasingly competitive and dramatically changing global economy and to manage their domestic quasi-public and private institutions.

Development planning in the Occupied Territories is taking place in the context of a dynamic and shifting political environment. When the preparation of these sectoral analyses was initiated in December, 1991, the Peace Talks had only just begun, and a different political party was in office in Israel. Since then, several sessions of the Peace Talks have taken place (with some progress, at least at the technical level), and elections in Israel and the United States (a co-sponsor of the Peace Talks) have resulted in changes in government in both countries.

In order to ensure that they are contributing most positively to the process of economic and social development in the Occupied Territories, donors should increasingly turn their attention to support of policies, programs and projects which are linked across sectors in ways which most effectively make use of the resources available. Moreover, in the event of political change, it will be necessary for donors and international private voluntary organizations (PVOs) currently operating projects in the West Bank and Gaza Strip (and most importantly for UNRWA) to recognize that they most likely will have different roles in the process of planning and implementing economic development and social programs in the area.

In the long run donors will need to recognize that the eventual fulfillment of great expectations of economic growth in the Occupied Territories will require infusion of sufficient funds for operating costs and capital investment, as well as technical assistance and training help create jobs and develop a healthy, competitive economy. If donors cannot provide a sufficient quantity of such funds directly, then facilitating access to funds from other appropriate sources should become a priority. Donors should also encourage cooperation—economic and otherwise—within the Middle East region, and in particular between Israel and the Occupied Territories. Such cooperation would strengthen the capacity of the countries in the region (and of the Occupied Territories) to compete in the changing global marketplace. It may also contribute to political and social stability in the area and in the Occupied Territories specifically.

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Table 1

Summary of Recommendations by Sector

Agriculture	Education & Training	Finance & Credit	Health	Industry & Enterprise	Infrastructure (Communications, Electrification, Transportation)	Trade	Water & Sanitation
ASSUMES STATUS QUO							
Short-term relief program including agricultural feeder roads, land reclamation	Improve computer, laboratory & library facilities at public & private K-12 level & post-secondary educational & training institutions	Expand community-based savings & credit institutions (e.g., credit circles)	Strengthen health systems' planning & management at all levels of the health care system	(See finance & credit for related recommendations)	(See education for related recommendations.)	(See agriculture & industry for related recommendations.)	Design & implement small-scale water & sanitation projects, in the West Bank & Gaza Strip, using the most appropriate technologies
Improve capacity of Palestinian institutions to plan, manage & evaluate programs & projects	Expand & improve private sector initiatives in literacy & distance learning	Improve capacity of banks, credit institutions & insurance companies to plan, manage & evaluate their activities	Improve financial management capacity & potential for cost recovery at all levels & types of facilities	Enhance capacity of industry & enterprise in terms of productivity, quality control, management (financial, personnel, etc.)	Improve managerial & planning of Palestinians currently or potentially responsible for infrastructure projects	Conduct marketing studies & surveys to generate reliable trade-related data	Immediate design & implementation of wastewater recycling, large-scale water-catchment & other related projects in the Gaza Strip
Improve & expand marketing information & support systems; coordinate with other sectors, (e.g., industry for food processing)	Physically rehabilitate existing K-12 schools & construct new schools as necessary; include facilities for recreation & community-based education in rehabilitated & new schools	Develop finance & credit data and information clearinghouse	Expand facility, regional and inter-regional health planning & needs assessment activities	Develop & expand linkages between Palestinian industry & enterprise, foreign universities & research institutions	Upgrade capacity of skilled and semi-skilled workers in infrastructure (focusing on skills in new technologies)	Expand & improve linkages between Palestinian firms and trade fairs, foreign business & trade and related institutions	Design & implement small- and medium-scale sanitation projects
Expand use of improved irrigation systems making better use of scarce water resources	Revise K-12 and post-secondary curriculum, including ensuring linkage of curriculum to development needs and employment opportunities	Expand credit for the productive private sector (e.g., loan guarantees)	Expand & improve capacity of institutions to collect, analyze & disseminate data & information for expanded health educational programs	Conduct comprehensive industry/enterprise inter- and intra-regional planning (including for feasibility/appropriateness of industrial zones)	Develop computer-based information systems for planning & management of infrastructure projects	Expand & improve economic infrastructures which improve domestic & import markets (e.g., capital projects & systems for monitoring quality control of products)	Upgrade capacity of Palestinian institutions to conduct water quality & other environmental studies
Expand and improve crop varieties & livestock production (to enhance marketing potential, improve land & water use)	Expand & improve teacher training in educational theory & practice & in grade levels & subject areas for which they are responsible	Conduct study of capacity of existing bank to manage larger loans to the productive sector	Conduct an assessment of existing health research studies & data bases; disseminate results	Strengthen institutions which support industry & enterprise (e.g., Industrial Union(s), Chambers of Commerce, economic development institutions)	Upgrade & expand road networks, particularly key market access roads & roads in villages with little or no access to areas having basic services	Expand Palestinian trade missions & related short-term visits to foreign countries	Conduct water, air and other environmental studies, focusing initially on high risk areas
Develop industrial sector in Gaza, in lieu of expansion of agricultural sector, in view of water shortage	Expand availability of new educational technologies at K-12 & post-secondary levels & train teachers in use of same	Conduct study of & plan for broad-based insurance needs	Develop & implement facility and cross-facility health management & information systems	Develop/expand industry/enterprise data & information systems & clearinghouses (e.g., marketing information systems)	Develop regional infrastructure plans, by subsector (e.g., electrification), focusing on most cost-effective systems, & expand community involvement in infrastructure planning	Develop trade-related data & information systems & clearinghouses (linked to regional & international information systems)	Improve capacity of municipal & private companies to plan, manage & evaluate water & sanitation services & systems, including improving their capacity to recover costs of services
Expand capacity of Palestinian research & extension services	Improve management of educational & training institutions at all levels	Improve capacity of Palestinian institutions to carry out planning & devise policies & programs at the macroeconomic and microeconomic levels	Expand continuing education for health care providers to help ensure quality of care	Expand capacity for and conduct research studies of productivity & quality control, including directly & indirectly related factors (e.g., labor/management relations, occupational & environmental health practices, quality control mechanisms)	Conduct demonstration projects on alternative energy sources	Upgrade capacity of Palestinian firms to have competitive advantages (e.g., in new product development, quality control requirements of trading partners, marketing techniques)	Improve capacity of skilled & semi-skilled employees, focusing on new technologies & processes
Expand & improve linkages between Palestinian institutions and foreign public & private sector agricultural research & development institutions	Expand capacity of post-secondary institutions to provide short-term training in marketable skill areas		Develop/adapt practice guidelines for all provider categories & levels of care		Improve capacity of public, quasi-public & private organizations to design/adapt & manage infrastructure financial systems & to recover costs of related services	The U.S. should explore relaxation of any trade barriers on Palestinian products & implementation of favorable trade regulations	Conduct study of water pricing & utilization
Develop/expand an agricultural data & information clearinghouse	Expand capacity of post-secondary institutions to conduct applied research & development projects for the private sector (including expanding facilities & training of faculty)		Expand primary & secondary level care, community-based rehabilitation services, & mental health services to underserved areas	Design & expand support systems for industry/enterprise (e.g., quality control, product testing, consultation for environmental & occupational health & safety, trade)	Expand electrification to villages without services & upgrade existing equipment		Develop/improve water & sanitation information systems
	Develop/expand an education & training data and information clearinghouse		Plan and implement regional systems care, to make the most effective and efficient use of scarce resources & improve care delivery	Improve ergonomics and productive capacity of existing and selected new industries/enterprises	Develop/adapt certification & standards for physical infrastructure personnel (e.g., electrification), for use in initial and on-going assessment of skills among municipal & quasi-public employees		Develop a water and sanitation data & information clearinghouse
	Develop & improve the design & use of educational assessment materials for use with teachers and students		Improve existing health data & clearinghouses				
	Conduct an assessment of university programs to identify potential areas for regional coordination and resource sharing		Develop capacity of Palestinian facilities & health care providers to provide services which are not available in the O.T., if doing so would improve effectiveness & efficiency				
ASSUMES POLITICAL CHANGE							
Expand support for graduate training	Expand construction of new public schools, as necessary	Expand credit for productive private sector through loan guarantees, etc. through donor agencies, international, regional and national banking institutions	Support integrated health systems	Design & develop industrial zones, determined to be appropriate (see above)	Expand communications systems, using appropriate, low-cost technologies	Develop multi-national trade data & information systems	Plan & implement large-scale water & sanitation projects, as necessary
Expand support for improved buildings & laboratories for educational institutions	Expand research & development related to the productive private sector	Expand banking & credit services (branches of existing banks or institutions or new banks or institutions) to geographic areas in which no such services exist	Support public & private health financing mechanisms	Adapt/develop new products through loans or small grants	Expand integrated electrification system, using low-cost appropriate technologies	Develop/expand free trade zones	Expand support for multi-national water & sanitation projects in Middle East

NOTE: This table does not include recommendations concerning donor coordination, nor those related to removal of bureaucratic or other constraints to development.

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Table 2.
Linkage Between Sectoral Recommendations & Development Goals & Objectives

Recommended Sectoral Activities	GOAL		Objectives		
	Improved economic & social well-being of the population	Increased productivity & marketing of agricultural & manufactured goods	Strengthened capacity of both public & private sector institutions to plan & manage on-going & development policies, programs & projects	Improved educational attainment, health, and participation in the workforce on the part of the population	Improved use of renewable resources
<u>Across Sectors</u>					
Elimination or alleviation of bureaucratic and other constraints	X	X	X	X	X
Strengthening the capacity of Palestinian public and private sector institutions to plan, manage & evaluate policies, programs & projects at the national, regional and local level	X	X	X	X	X
Improving the development, diffusion, use access to, evaluation & acquisition of technology in the public and private sectors	X	X	X	X	X
Improving management of and access to use of credit and financial services.	X	X	X		X
Improving the collection, analysis & distribution of data & information for use in public and private sector programs & projects, as well as access to relevant GOI and other data and information	X	X	X	X	X
Improving physical infrastructure & water & sanitation systems which support the public & private sectors & meet basic human needs	X	X	X		X
<u>Agriculture</u>					
Short-term relief program, including agricultural feeder roads and land reclamation	X	X		X	X
Improve capacity of Palestinian institutions to plan, manage & evaluate programs & projects	X	X	X	X	
Improve & expand marketing information & support systems	X	X	X	X	X
Expand use of improved irrigation systems, better use of scarce water resources	X	X	X	X	X
Expand and improve crop varieties & livestock production (to enhance marketing potential, improve land and water use)	X	X		X	X
Develop industrial sector in Gaza, in lieu of expansion of agricultural sector, in view of water shortage	X	X		X	X
Expand capacity of Palestinian research & extension services	X	X	X	X	
Expand & improve linkages between Palestinian institutions and foreign public & private sector agricultural research & development institutions	X	X	X	X	X
Develop/expand an agricultural data & information clearinghouse	X	X	X	X	X
Expand support for improved buildings & laboratories for agricultural training	X	X		X	
Expand support for graduate training	X	X	X	X	X

Table 2, continued

Linkage Between Sectoral Recommendations & Development Goals & Objectives

Recommended Sectoral Activities	GOAL		Objectives		
	Improved economic & social well-being of the population	Increased productivity & marketing of agricultural & manufactured goods	Strengthen the capacity of public & private sector institutions to plan & manage on-going & development policies, programs & projects	Improved educational attainment, health, and participation in the workforce on the part of the population	Improved use of renewable resources
Education					
Improve computer, laboratory & library facilities at public & private K-12 level & post-secondary education & training institutions	X	X	X	X	
Expand & improve private sector initiatives in literacy & distance learning	X	X	X	X	
Physically rehabilitate existing K-12 schools & construct new schools as necessary; include facilities for recreation & community-based education in rehabilitated & new schools	X	X	X	X	
Revise K-12 and post-secondary curriculum, including ensuring linkage of curriculum to development needs & employment opportunities	X	X	X	X	
Expand & improve teacher training in educational theory & practice & in grade levels & subject areas for which they are responsible	X	X	X	X	
Expand availability of new educational technologies at K-12 & post-secondary levels & train teachers in use of same	X	X	X	X	
Improve management of educational & training institutions at all levels	X	X	X	X	
Expand capacity of post-secondary institutions to provide short-term training in marketable skill areas	X	X	X	X	
Expand capacity of post-secondary institutions to conduct applied research & development projects for the private sector (including expanding facilities & training of faculty)	X	X	X	X	
Develop/expand an education & training data and information clearinghouse	X	X	X	X	
Develop & improve the design & use of educational assessment materials for use with teachers and students	X	X	X	X	
Conduct an assessment of university programs to identify potential areas for regional coordination and resource sharing	X	X	X	X	
Expand construction of new public schools, as necessary	X			X	
Expand research & development related to the productive private sector	X	X	X	X	X

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Table 2, continued
 Linkage Between Sectoral Recommendations & Development Objectives

Recommended Sectoral Activities	GOAL		Objectives		
	Improved economic & social well-being of the population	Increased productivity & marketing of agricultural & manufactured goods	Strengthened capacity of both public & private sector institutions to plan & manage on-going & development policies, programs & projects	Improved educational attainment, health, and participation in the workforce on the part of the population	Improved use of renewable resources
Finance & Credit					
Expand community-based savings & credit institutions (e.g., credit circles)	X	X		X	
Improve capacity of banks, credit institutions & insurance companies to plan, manage & evaluate their activities	X	X			
Develop finance & credit data and information clearinghouse	X	X	X	X	
Expand credit for the productive private sector (e.g., loan guarantees)	X	X	X	X	
Develop the management infrastructure for the finance & credit sector (e.g., policy instruments for financial regulation & standardized credit applications)	X	X	X	X	
Conduct study of capacity of existing institutions to manage larger loans to the productive sector	X	X	X	X	
Conduct study of & plan for broad-based insurance needs	X	X	X	X	
Improve capacity of Palestinian institutions to carry out planning & devise policies & programs at the macroeconomic & microeconomic levels	X	X	X	X	X
Expand credit for productive private sector through loan guarantees, etc., through donor agencies, and international, regional and national banking institutions	X	X	X	X	
Expand banking & credit services (branches of existing banks or credit unions or new banks or credit institutions to geographic areas in which no such services exist)	X	X	X	X	

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Table 2, continued
 Linkage Between Sectoral Recommendations & Development Objectives

Recommended Sectoral Activities	GOAL		Strengthened capacity of both public & private sector institutions to plan & manage on-going & development policies, programs & projects	Improved educational attainment, health, and participation in the workforce on the part of the population	Improved use of renewable resources
	Improved economic & social well-being of the population	Increased productivity & marketing of agricultural & manufactured goods			
Health					
Strengthen health systems' planning & management at all levels of the health care system	X		X	X	X
Improve financial management capacity & potential for cost recovery at all facility levels	X		X	X	
Expand facility, regional and inter-regional health planning & needs assessment activities	X		X	X	
Expand & improve capacity of institutions to collect, analyze & disseminate data & information for expanded health education programs (incl. disease prevention & occupational and environmental health, for example)	X		X	X	
Conduct an assessment of existing health research studies & data bases; disseminate results	X		X	X	X
Develop & implement facility & cross-facility health management & information systems	X		X	X	
Expand continuing education for health care providers to help ensure quality of care	X		X	X	X
Develop/adapt practice guidelines for all provider categories & levels of care	X		X	X	X
Expand primary & secondary level care, community-based rehabilitation & mental health services to underserved areas	X		X	X	X
Plan and implement regional systems care, to make the most effective & efficient use of scarce resources & improve care delivery	X		X	X	X
Improve existing health data & clearinghouses	X		X	X	X
Develop capacity of Palestinian health facilities & to offer diagnostic & treatment services not available in the O.T., if doing so would improve effectiveness/efficiency of the system	X		X	X	
Support integrated health systems	X		X	X	
Support public & private health financing mechanisms	X		X	X	

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Table 2, continued

Linkage Between Sectoral Recommendations & Development Objectives

Recommended Sectoral Activities	GOAL		Objectives		Improved use of renewable resources
	Improved economic & social well-being of the population	Increased productivity & marketing of agricultural & manufactured goods	public & private sector institutions to plan & manage on-going & development policies, programs & projects	Improved educational attainment, health, and participation in the workforce on the part of the population	
Industry & Enterprise					
Enhance capacity of industry & enterprise in terms of productivity, quality control, management (financial, personnel, etc.) & research	x	x	x	x	
Develop & expand linkages between Palestinian industry & enterprise & foreign universities research institutions	x	x	x	x	x
Conduct comprehensive industry/enterprise inter- and intra-regional planning (including for feasibility/appropriateness of industrial zones)	x	x	x	x	x
Strengthen institutions which support industry & enterprise (e.g., Industrial Unions, Chambers of Commerce, & economic development institutions)	x	x	x	x	
Develop/expand industry/enterprise data & information systems & clearinghouses (e.g., marketing information systems)	x	x	x	x	x
Expand capacity for and conduct productivity & quality control, including directly & indirectly related factors (e.g., labor/management relations, occupational & environmental health practices & quality control mechanisms)	x	x	x	x	
Design & expand support systems for industry/enterprise (e.g., quality control, product testing, consultation for occupational health, trade)	x	x	x	x	x
Improve ergonomics and productive capacity of existing and selected new industries/enterprises	x	x	x	x	
Design & develop industrial zones, if determined to be appropriate (see above)	x	x	x	x	x
Adapt/develop new products through loans or small grants	x	x	x	x	x

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Table 2, continued

Linkage Between Sectoral Recommendations & Development Objectives

Recommended Sectoral Activities	GOAL		Objective		
	Improved economic & social well-being of the population	Increased productivity & marketing of agricultural & manufactured goods	public & private sector institutions to plan & manage on-going & development policies, programs & projects	Improved educational attainment, health, and participation in the workforce on the part of the population	Improved use of renewable resources
Infrastructure (Communications, Electrification, Transportation)					
Improve managerial & planning capacity of Palestinians currently or potentially responsible for infrastructure projects	x		x	x	x
Upgrade capacity of skilled and semi-skilled workers in infrastructure	x		x	x	x
Develop computer-based information systems for planning & management of infrastructure projects	x		x	x	x
Upgrade & expand road networks, particularly key main street access roads & roads in villages with little or no access to areas having basic services	x		x	x	x
Develop regional infrastructure plans, by subsector, focusing on most cost-effective systems, and expand community involvement in infrastructure planning.	x		x	x	x
Conduct demonstration projects on alternative energy sources	x		x	x	x
Improve capacity of public, quasi-public & private organizations to design/adapt & manage infrastructure financial systems & to recover costs of related services	x		x	x	x
Expand electrification to villages without services & upgrade existing equipment	x		x	x	x
Develop/adapt certification & standards for standards for physical infrastructure personnel for use in initial and on-going assessment of skills among municipal & quasi-public employees	x		x	x	x
Expand communications systems, using appropriate, low-cost technologies	x		x	x	x
Expand integrated electrification system, using low-cost, appropriate technologies	x		x	x	x
Expand road network & link with Israeli & Jordanian road networks	x		x	x	x

Table 2, continued
 Linkage Between Sectoral Recommendations & Development Objectives

Recommended Sectoral Activities	GOAL		Objectives		
	Improved economic & social well-being of the population	Increased productivity & marketing of agricultural & manufactured goods	public & private sector institutions to plan & manage on-going & development policies, programs & projects	Improved educational attainment, health, and participation in the workforce on the part of the population	Improved use of renewable resources
Trade					
Conduct marketing studies & surveys to generate require trade-related data	X	X	X	X	
Expand & improve linkages between Palestinian firms and trade institutions & foreign institutions, firms, & business & trade institutions	X	X	X	X	
Expand & improve economic infrastructures which improve domestic & import markets (e.g., capital projects & systems for monitoring quality control)	X	X	X	X	
Expand Palestinian trade missions & related short-term visits to foreign countries	X	X	X	X	
Develop trade-related data & information systems & clearinghouses (linked to regional & international information systems)	X	X	X	X	
Upgrade capacity of Palestinian firms to have competitive advantages (e.g., in new product development, quality control requirements of trading partners, marketing techniques)	X	X	X	X	
Develop multi-national trade data & information systems	X	X	X	X	
Develop/expand free trade zones	X	X	X	X	
Water & Sanitation					
Design & implement small-scale water & sanitation projects in the West Bank & Gaza Strip, using the most appropriate technologies	X	X	X	X	X
Immediate design & implementation of wastewater recycling, large-scale water-catchment & other related projects in the Gaza Strip	X	X	X	X	X
Design & implement small- and medium-scale sanitation projects	X	X	X	X	X
Upgrade capacity of Palestinian institutions to conduct water quality & other environmental studies	X	X	X	X	X
Conduct water, air and other environmental studies, focusing initially on high risk areas	X	X	X	X	X
Improve capacity of municipal & private companies to plan, manage & evaluate water & sanitation services & systems, including improving their capacity to recover costs of services	X		X	X	X
Improve capacity of skilled & semi-skilled employees, focusing on technologies & processes	X		X	X	X
Conduct study of water pricing & utilization	X		X	X	X
Develop/improve water & sanitation information systems	X		X	X	X
Develop a water and sanitation data & information clearinghouses	X		X	X	X
Plan & implement large-scale water & sanitation projects, as necessary	X		X	X	X
Expand support for multi-national water & sanitation projects in Middle East	X		X	X	X