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**CONSTRUCTION AND HOUSING IN THE
WEST BANK AND GAZA STRIP**

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* This study constitutes Part One of the contribution made by Dr. Rami AbdulHadi (Centre for Engineering and Planning, Ramallah) to the intersectoral project of the UNCTAD secretariat on "Prospects for sustained development of the Palestinian economy in the West Bank and Gaza Strip". The opinions expressed in this study are those of the author and do not necessarily reflect those of the secretariat of the United Nations. The designations employed and the presentation of the material in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries.

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List of abbreviations

CBS	Central Bureau of Statistics
CEP	Centre for Engineering and Planning
Dunum	1,000 m ² or about 0.25 acre
GDP	Gross domestic product
GDGF	Gross domestic capital formation
JCO	Jordan Cooperative Organization
JD	Jordanian dinar
JPJC	Jordanian-Palestinian Joint Committee
m²	Square metre
OPT	Occupied Palestinian territory (the terms: "occupied territory" or "territory" refer to occupied Palestinian territory)
PDP	Programme for Development of the Palestinian national economy for the years 1994-2000
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNRWA	United Nations Relief and Works Agency for Palestinian Refugees in the Near East
\$	United States dollar
WBDBP	West Bank Data Base Project

Preface

i. As part of its work programme pursuant to resolution 239 (XXIII) of the Trade and Development Board and resolution 44/174 of the General Assembly, the UNCTAD secretariat initiated, in 1990/91, the preparation of an in-depth intersectoral project on the economy of the West Bank and Gaza Strip. Part one of the project deals with a comprehensive assessment of the economic and social situation in the West Bank and Gaza Strip, the main impediments to sustained growth and development, pressing needs, and corresponding measures for immediate action to promote recovery. Part two of the project constitutes an in-depth analysis of prospects under different scenarios for the future development of the Palestinian economy. Part three of the project is intended to provide both a strategy framework and policy guidelines for the revival and sustained future development of the Palestinian economy in the West Bank and Gaza Strip.

ii. For the implementation of the project, a total of 25 in-depth studies were initiated at the field level covering economic and social sectors and issues. Concurrently, and in order to facilitate the technical aspects of work on parts two and three, the UNCTAD secretariat has also prepared an in-depth study of a quantitative framework examining future options and prospects under several scenarios. The summary findings of the field studies, in particular an identification of pressing needs and corresponding feasible measures for immediate action, were presented for further consideration by an expert group meeting (held in May 1992). The report of that meeting was published separately (UNCTAD/DSD/SEU/2). The quantitative study prepared by the secretariat will be published as UNCTAD/DSD/SEU/3.

iii. In order to provide more detailed substantive background to the findings and recommendations of the expert group meeting, and to enable donors further to develop their programmes of assistance to the Palestinian people, the first parts of a selected number of the field studies commissioned within the scope of this project are being published in a special study series on Palestinian economic and social development. The second and third parts of the field studies will be subsequently consolidated by the UNCTAD secretariat. The present document constitutes part one of the study prepared by an UNCTAD consultant, Dr. Rami AbdulHadi, Centre for Engineering and Planning, Ramallah, the West Bank, on construction and housing in the West Bank and Gaza Strip. In developing the scope and orientation of the subject, the outline of the study was brought to the attention of the United Nations Centre for Human Settlements (Habitat) with the aim of soliciting the Centre's views as well as to coordinate efforts. Its valuable observations and other relevant reports dealing with the housing situation in the occupied territory contributed towards the preparation of this study.

iv. It should be noted that, in view of the early completion of the in-depth sectoral studies undertaken within the context of the intersectoral project, the implications of the accords concluded between Israel and Palestine in 1993 and 1994 could not be reflected in this study.

Introduction

The partition plan for Palestine, outlined in the United Nations General Assembly resolution 181 of November 1947, called for the creation of both an Arab state and a Jewish state in Palestine. The borders of the two states were so arranged as to allow for direct access between all parts of each of the two states. The resolution never came into effect as planned. The actual borders of the State of Israel, declared in 1948, exceeded the borders set in the partition plan. Access between the West Bank and Gaza Strip was completely severed; the West Bank was incorporated into Jordan; the Gaza Strip came under Egyptian control. Contact between the two regions was re-established in the aftermath of 1967 war when both areas came under Israeli military occupation.

Jewish settlement in Palestine started long before the establishment of the State of Israel in 1948, and continued after the occupation of the West Bank and the Gaza Strip in 1967. This process has been accompanied by population transfers and significant loss of Palestinian private and public property including land and homes.

The Palestinian refugees who were forced to leave their homes in 1948 took shelter mainly in the West Bank, the Gaza Strip, Jordan, Syria, Lebanon, and to a lesser degree, in other Arab countries. Initial accommodations for these refugees were temporary tent camps which were gradually converted into fixed and semi-fixed shelters. In 1967, Palestinians residing in the West Bank and the Gaza Strip fled the war to Jordan. Most of those who left in 1967 were the refugees of 1948 who had been residing in camps around Jericho in the Jordan valley.

These political developments created adverse conditions which hampered the socio-economic development of the Palestinian people and stemmed the normal growth of the various sectors of their economy. The construction and housing sector has been among the sectors which were adversely affected, for a number of reasons:

First, Israel expropriated and confiscated vast areas of Palestinian land. This action deprived the Palestinian construction and housing sector of a substantial resource base essential for development.

Secondly, severe restrictions were imposed on the use of land remaining in Palestinian hands. Planning policies and practices pursued since 1967 have prevented Palestinians from developing their construction sector in a way that would adequately meet housing and other physical infrastructure requirements of growth and development in all economic and social sectors.

Thirdly, the general neglect of the industrial sector also discouraged an adequate development of necessary industries to support the construction and housing sector. This has resulted in the continued dependence of Palestinians on imports for much of the basic building materials, including cement and steel.

Fourthly, prolonged occupation also dampened efforts to develop national institutions capable of planning, implementing and managing socio-economic development.

Fifthly, government investment in construction represented only a minor contribution to overall investment in the construction sector, especially for housing purposes. This constraint was coupled with restrictions imposed on the transfer of money from abroad and on the establishment of local housing finance and credit institutions.

Consequently, housing facilities and infrastructure in the occupied Palestinian territory are inadequate. High room-occupancy density prevails. According to official Israeli statistics, more than 30 per cent of families in the West Bank and 33 per cent of families in the Gaza Strip lived in housing units with more than three persons per room and in both regions more than 6 per cent lived in units with densities exceeding five persons per room. Furthermore, 20 per cent of the housing units in the West Bank had no kitchens, 29 per cent had no running water, 47 per cent had no bathroom and 27 per cent had no electricity in 1985. In the Gaza Strip, 6 per cent had no kitchen, 25 per cent had no running water, 27 per cent had no bathroom and 8 per cent had no electricity. Nevertheless, and despite these limitations, the construction and housing sector has played a dominant role in the Palestinian economy during the past 25 five years.

Chapter I of the present study constitutes an overview of the activities in the sector during the period 1948-1967 and the changes affecting the legal framework. Chapter II examines the significance of the housing and construction sector in the economy of the occupied territory and its contribution to gross domestic product, employment and gross domestic capital formation. Chapter III presents the evolution of the sector starting from the 1967 war until 1990, covering population distribution, patterns of housing development, present housing conditions, sources of finance and employment opportunities in the sector. Chapter IV spells out the limitations and constraints that hamper growth in construction to meet demand. These include the lack of housing strategy, inadequate finance facilities, dearth of managerial skills and restrictions on land use and transfer of funds. Chapter V attempts to quantify the status of the housing stock, enumerate its characteristics, measure its occupancy density and identify the factors that affect housing cost and demand. Chapter VI reiterates the importance of the housing and construction sector for the economy of the occupied territory and proposes feasible areas for action to improve the performance of the sector to meet the changing needs of the Palestinian people.

Chapter I

CONSTRUCTION AND HOUSING 1948-1967

The establishment of Israel in 1948 resulted in a massive dislocation of the Palestinian population. By the end of 1948, Israel had acquired control over some 21,000 square kilometres or 77 per cent of historical Palestine, while only about 6,015 square kilometres remained under Palestinian control (5,650 square kilometres in the West Bank and almost 365 square kilometres in Gaza Strip).

Consequently, following the establishment of Israel in most of Palestine in 1948, more than 600,000 Palestinians became homeless and sought refuge mainly in the West Bank and Gaza Strip as well as Jordan, Syria and Lebanon. By the end of 1951 the number of Palestinian refugees living in these regions and countries registered with the United Nations Relief and Works Agency (UNRWA) totalled 879,667. 1/

The West Bank eventually went under Jordanian authority, while Gaza Strip was placed under Egyptian administration. Map 1 shows the boundaries of Palestine, the West Bank and Gaza Strip at the end of the 1948 hostilities.

The Palestinian refugees who ended up in the West Bank and Gaza Strip were mostly settled in refugee camps established under the auspices of UNRWA. Some refugees took residence outside the camps in towns and villages throughout the two regions.

A. Land and land-use planning

As in the rest of Palestine, land in the West Bank and Gaza Strip regions was either publicly or privately owned. Public land comprised areas owned or expropriated by the government for public use, in addition to land purchased by local government authorities, namely municipalities and village councils.

The land tenure system in the West Bank and Gaza Strip is based on the Ottoman Land Code of 1858 as amended by legislation passed under the British, Jordanian, and Egyptian administrations, and the Military Orders issued by the Israeli Military Authority since the occupation of these areas in 1967. 2/

According to the amended Land Code, land is classified into the following categories:

- (a) Waqf land. Land which is allocated to religious purposes.
- (b) Mulk land. Land which was initially given out by the Ottoman Sultan to Muslims.
- (c) Khuraj land. Land given out by the Ottoman Sultan to non-Muslims.
- (d) Miri land. Land which the Sultan did not allow to be dedicated as Waqf or given out to be possessed as Mulk. Jordanian Law No. 49 of 1953 eliminated all practical differences between mulk and miri lands and declared all miri lands falling within the municipal areas as transferred to mulk lands.

(e) Matruk land. Land which has been left for public purposes, such as for roads, cemeteries.

(f) Mawat land. Land which is considered dead as it is very far from the village.

(g) Masha' land. Land which surrounds the village and is set aside for use by the villagers either as common pastures or for the future development of the village.

In 1953 the Jordanian Government began to survey and document all land in the West Bank. However, by 1967 the process had only been completed for about 38 per cent of the land, and not all of the deeds had been issued. The registration was completed mainly in areas north of Nablus and east of Ramallah. The land in the areas around East Jerusalem, Hebron and Tulkarm remained largely unregistered. By 1967, only about 13 per cent of the land in the West Bank was registered in the name of the State.

Administratively, the West Bank was divided into three districts: Nablus, Jerusalem and Hebron. Each of these districts consisted of a number of sub-districts, as shown in map 2. Gaza Strip was treated as a single administrative unit.

Local government in the larger towns and villages in the West Bank and Gaza Strip generally consisted of municipal or village councils. Villages without councils generally had one or more appointed "Mukhtars" who provided liaison between the village residents and representatives of the central government. In 1967, there were 25 municipalities in the West Bank and two in Gaza Strip, while there were 95 village councils in the West Bank and eight in Gaza Strip. 3/

Construction activities for housing purposes in the West Bank and Gaza Strip were largely carried out by the private sector. Central and local government agencies were largely responsible for the construction of public facilities, infrastructure and a limited amount of public housing. UNRWA was responsible for settling refugees in camps.

Within municipalities, construction was carried out under the control of the municipal councils in their capacity as local planning committees. Construction work required the approval of these committees only. However, certain public projects such as hospitals and schools required the approval of the district or central planning authorities.

Construction in areas which fell outside municipal limits was subject to the approval of district planning committees, and in most cases, a central planning committee. However, in some cases, village councils acted as local planning committees. Construction within the refugee camps was not subject to any of the planning authorities. It was the responsibility of UNRWA carried out according to its specifications and requirements, although mostly by the individual residents of the camps.

Until 1955, the prevailing planning legislation was largely that of the mandate period. During the British Mandate over Palestine, planning laws were formulated and regional land-use plans were drawn up for almost all of

Palestine. In addition to the regional plans, town planning schemes and planning regulations were issued for a number of towns and villages in the areas which later became known as the West Bank and Gaza Strip.

Most of the area of the West Bank was covered by the two regional planning schemes under the Mandate, known as RJ-5 for the Jerusalem district and S-15 for the Nablus district. The Mandate regional plans classified the land areas covered into three major zones: development zone; agricultural zone; natural reserve zone. Development in each zone was governed by a set of regulations. These regulations stipulated the type of construction allowed, the built-up densities, the required set-back from existing or proposed roads and the procedure for land parcelling. Mandate planning laws were largely maintained in the West Bank until Jordanian Law No. 31 was passed in 1955. This law was eventually replaced in 1966 by the Law for Planning Cities, Villages and Buildings No. 79. 4/

The Planning Law No. 79 of 1966 defined three levels of planning authorities. At the top was the Higher Planning Council, chaired by the Minister of the Interior, and later the Minister of Municipal and Rural Affairs and Environment, and comprising the Attorney General, the Secretary General of the Ministry of Health, the Secretary General of the Ministry of Public Works, the Secretary General of the Ministry of Planning, the General Manager of the Housing Authority, the Director of the Central Planning Department, and the President of the Engineering Association.

Reporting to the Higher Planning Council were the three district planning commissions for the Nablus, Jerusalem and Hebron districts. These commissions, comprising the municipal councils, were chaired by the respective district governors; their memberships included representatives of the concerned ministries, local councils and the community. In certain cases, some village councils functioned as local planning committees for the purpose of issuing building permits.

Finally, a Central Planning Department was established to carry out survey work and to provide technical advice to the Higher Planning Council. Its duties included the preparation and approval of plans, and the granting of building permits.

Law number 79 defines responsibilities at each level of authority regarding the preparation and approval of development plans, and the issuing of building permits. The law provides for a hierarchy of three land-use development plans, in addition to parcelling schemes which deal mainly with land ownership. These three levels include regional, outline and detailed land-use plans. Regional plans are comprehensive and cover the entire area of a certain region, while outline and detailed plans apply to towns and villages. In the case of small towns and villages, the outline and detailed plans may be combined into one detailed outline plan without the need to go through the two steps of planning.

All development plans must include building regulations such as permitted land use in each zone, size and form of building, and maximum building density. The procedure for preparing and approving plans includes the survey, plan preparation, consultation with local authorities and community representatives, depositing the plan for public review and comment, and final approval of the plan after consideration of public objections and amendments.

According to the above-mentioned law, parcelling schemes must be prepared within a planned area if plots are to be subdivided into less than 10 dunums, which covered most cases where land was converted from rural to urban use. Parcelling schemes are the responsibility of the land owner and must conform to approved detailed plans. Parcelling schemes require the approval of the local planning commission only.

Regarding building permits, the law requires that a permit be obtained before any construction or change of use takes place. Appeal against refusal of a permit is possible; development without a permit may result in demolition or a fine. Activities requiring a permit include construction of new buildings or structures, adaptation, extension or demolition, external decoration, internal services, new roads and infrastructure, and agricultural buildings. Changes of use, either of land or buildings, also require a permit. Applications for building permits are submitted to review and approval by local planning commissions. However, permits are subject to amendment or revocation in specified circumstances by the Higher Planning Council.

The law gives planning authorities little discretion in granting or refusing a building permit. A permit must conform to detailed plans and parcelling schemes. However, local planning commissions and district planning commissions are granted a leeway of 5 per cent and 10 per cent, respectively, of additional area of construction.

When construction takes place without a permit, the law stipulates that an enforcement notice be issued requiring the restoration of the land by the owner within 15 days, but allowing submission of an application for a permit. If the permit is refused, or a construction plan is not adhered to, the authority may restore the land, including demolition of structures. However, enforcement action is not allowed simply on the basis of lack of permit or for violation of the provisions of a permit.

Between 1948 and 1967, outline plans were prepared and approved for 15 of the 25 municipalities of the West Bank. In most cases, the regulations of the new plans were similar to those of the mandate plans, with new areas zoned for development. Only one village plan was approved during this period for the village of Taybeh in the Ramallah sub-district. The outline plans prepared during this period focused on roads and set-backs from roads; most plans contained no proposals for industrial areas or public buildings and generally allowed current building trends to continue.

B. Construction activities

In the years immediately following the establishment of Israel in 1948, the economy of the West Bank and Gaza Strip suffered as a result of the massive influx of refugees and the absence of any significant investment. Early in 1948, nearly two thirds of the Palestinian population lived within the land area which became the State of Israel later that year. By mid-1950, some 600,000 Palestinians left Israel and migrated to the West Bank, Gaza Strip, Jordan and other countries. Close to 50 per cent of the refugees were relocated in the West Bank and 16 per cent in Gaza Strip while the rest settled mainly in neighbouring Arab countries. 5/

Traditionally, construction in the West Bank and Gaza Strip consisted mainly of housing. It comprised generally the building of single-unit dwellings in both urban and rural areas alike. These units were frequently inhabited by extended families, resulting in relatively high occupation densities.

In the early 1950s, a massive construction programme was carried out by UNRWA in an effort to provide shelter for the refugees in the West Bank and Gaza Strip. These refugee settlements were concentrated in 18 refugee camps throughout the West Bank, and eight refugee camps in Gaza Strip.

Construction in the refugee camps was planned and controlled by UNRWA but mostly carried out by the camp residents. The available land area for each camp was divided into small plots, which were assigned to individual refugee families. Simple expandable shelter units were generally constructed of concrete blocks. Roofing material was mostly of corrugated tin sheets held in place by cement blocks, stones or other heavy objects.

In order to cope with the relatively high increase in population (about 4 per cent annually), most of the families in the refugee camps extended their shelter units by the construction of additional rooms or, in some cases, additional floors to the original dwellings. On the other hand, some families who were able to improve their financial situation moved out of the camps to live in neighbouring towns and villages where they had acquired jobs or established businesses. Some of the refugee camps were built so close to towns and villages that they were not easily distinguishable from the surrounding communities, especially in Gaza Strip.

Construction activity for housing in the West Bank and Gaza Strip boomed in the late 1950s and early 1960s, especially as more Palestinians found employment in Kuwait, Saudi Arabia and other oil-producing countries in the region, as well as in countries of North and South America. Many of these workers remitted money to their families in the occupied Palestinian territory to invest in housing. The results of a survey, conducted in 1986/1987 by the Centre for Engineering and Planning (CEP) in a selected number of towns and villages throughout the West Bank, indicated that the number of buildings constructed during the period 1955-1965 represented about 22.7 per cent of the total number of buildings in the selected sample. 6/

During the 1950s, the number of multi-storey buildings had increased steadily, especially in towns. The census of population and housing, which was conducted in the West Bank by the Jordanian Government in 1961, indicated that 60 per cent of all buildings in the 16 municipal towns, which existed at the time of the census, accommodated only a single household, while 25 per cent accommodated two or more households, while 15 per cent of all buildings were vacant. 7/ Table 1 gives the distribution of buildings according to occupancy in the municipal towns of the West Bank in 1961. The census also indicated that only 31 per cent of the households in the West Bank had kitchens, 24 per cent had internal toilets, 13 per cent had electricity, 12 per cent had running water, and 7 per cent had bathtubs. The households in the major cities had considerably better facilities, although these varied from one city to another, as shown in table 2.

Construction of public buildings, such as schools, clinics, hospitals, clubs, etc., was mainly carried out by the central authorities or their agencies, local municipal and village councils, and some charitable societies and organizations, as well as by UNRWA in the refugee camps. In the education and health sectors, construction activities ranged from minor additions to, or expansion of, existing buildings to the construction of new buildings and facilities. Other activities included the construction of certain municipal facilities such as office buildings, slaughter houses, wholesale markets, power stations, waterworks, police stations, and communications and post office facilities in the larger cities.

In the commercial sector, construction activity was mainly concentrated on shops and other commercial buildings in the business districts of the main cities as Jerusalem, Nablus, Hebron, Ramallah, Gaza and Bethlehem. In addition, some 20 hotels were constructed in Jerusalem, Bethlehem, Jericho, Ramallah and Gaza to provide the tourist industry with basic accommodation facilities. Some public transportation terminals were also constructed in some of the major cities, such as Jerusalem, Nablus, Tulkarm, Jenin, Hebron, Ramallah and Gaza.

Although the industrial sector did not experience any significant growth and development in the West Bank and Gaza Strip during the period 1948-1967, some basic industries were initiated during that period. Establishing these industries required the construction of facilities, as in the case of the vegetable oil and match factories in Nablus, the beverage factories in Gaza, and some textile and shoe factories in Hebron and Bethlehem. Towards the end of that period, stone quarries and cutting facilities had expanded in number and size of operation. They also were involved in construction activities in different parts of the West Bank.

In addition to private and public building construction, a number of public works and infrastructural projects were also implemented both in the West Bank and Gaza Strip during the 1960s especially. These projects included the construction of new roads and the upgrading of existing ones, as well as the construction of water and electricity distribution networks and telephone and communication systems.

C. The construction industry

The construction industry in the West Bank and Gaza Strip during 1948 to 1967 was mainly geared to housing commissioned by the private sector. Buildings consisted mainly of one housing unit, although in some of the major cities, including Jerusalem, Nablus, Hebron, Bethlehem, Ramallah and Gaza, some multi-storey buildings were also constructed, as mentioned earlier.

In 1966, the share of the construction and housing sector in GDP was about 15 per cent for the West Bank and 6.0 per cent for Gaza Strip. These activities did not include work carried out by UNRWA in the refugee camps of both regions. 8/ In general, construction in the West Bank and Gaza Strip was labour-intensive, carried out mostly by either private individuals or by small subcontractors. It generally lacked proper planning and management and thus had a relatively low efficiency. The number of workers in building construction was estimated at about 20,000 in the West Bank and about 4,000 in Gaza Strip. These figures do not include workers in public works, or informal construction workers, especially in the rural areas where many family members usually participated in construction activities. 9/

Construction materials were either available locally or imported. Cement, for example, was imported from the East Bank of Jordan to the West Bank, and through Egypt to Gaza Strip. Sand was available in Gaza Strip; stone was locally available in the West Bank. As construction methods were generally primitive and mostly labour-intensive, only basic construction equipment was available. Mixing concrete was either manually carried out on the site or by using small portable concrete mixers. All wood was imported, then mostly processed locally. Structural and other kinds of steel were also imported as no facility for steel production was available locally.

Chapter II

THE ROLE OF CONSTRUCTION IN THE PALESTINIAN ECONOMY SINCE 1967

Notwithstanding the constraints of occupation, construction and housing have evolved into a major sector of the Palestinian economy, playing an important role in the generation of employment and income. In assuming this role, the sector has also carried significant forward and backward linkages, ranging from simple furniture manufacturing plants to major construction materials production and processing industries.

In the special circumstances of the occupied Palestinian territory, the construction sector takes on special importance for a number of reasons:

1. The need to provide adequate shelter has enhanced the determination of the Palestinian people to stay in their territory despite the pressures exerted by occupation.
2. Construction by Palestinians for housing and other purposes has represented an obstacle to the process of land expropriation and the expansion of Jewish settlements in the occupied territory.
3. The construction of physical infrastructure has acted as an impetus for the promotion and mobilization of local investments, thus contributing towards the consolidation of the Palestinian economic base.
4. The construction sector has supported a number of industries such as stone quarrying and the manufacture of marble, tiles and cement blocks, in addition to ironmongery, carpentry and aluminum fabrication workshops. Recently, a number of construction-related industries have been established, such as plastics and PVC pipes, as well as metal and concrete elements and fittings for sewage and water works. About 9 per cent of the work force in the occupied Palestinian territory is employed in these construction-related industries.
5. The sector has contributed towards alleviating the problems associated with unemployment and especially seasonal unemployment in rural areas.
6. The number of Palestinians employed in Israel as construction workers was roughly about 56,000 in 1989. Any expansion of construction activities in the occupied Palestinian territory will provide further local employment for some of these workers, thus reducing their dependence on the Israeli market.

The importance of the construction sector in the economy of the occupied Palestinian territory can be assessed by utilizing three indicators: contribution to gross domestic product, employment participation and share in fixed domestic capital formation.

A. Contribution to the gross domestic product

The contribution of the construction sector (classified in national accounts series to include water and electricity works) to the gross domestic product of the West Bank and Gaza Strip has increased from about \$165 million in 1980 to about \$302 million in 1987. As indicated in table 3, these are

equivalent to almost 16 per cent and 18 per cent of gross domestic product of the two areas in these years, respectively. ^{10/} In the West Bank and Gaza Strip, the sector's contribution to GDP averaged 14.4 per cent and 19.4 per cent, respectively, during the period 1972 to 1987, or more than twice that of the industrial sector.

B. Employment and the construction and housing sector

The number of workers employed in construction activities in the West Bank and Gaza Strip increased from about 13,000 in 1970 to about 20,000 in 1989 (table 4). Despite this increase, the share of Palestinian construction workers employed in the occupied territory decreased from 53 per cent to 26 per cent as more workers found jobs in the Israeli construction sector. The number of workers employed in the construction sector in the occupied Palestinian territory has fluctuated depending on the level of activity within both the local and Israeli markets. The latter has gradually acquired importance as significant numbers of Palestinian construction workers have been employed in Israel.

In the West Bank the number of workers employed in construction fell from about 8,400 in 1970 to about 7,700 in 1975, then increasing to about 10,000 in 1980, and standing at 13,000 in 1989. The percentage of construction workers in total employment in the West Bank also followed an increasing trend, from 8.4 per cent in 1970 to 10.7 per cent in 1980 and 11.0 per cent in 1989. Spurred by the economic boom in the Arab oil-producing countries starting in the 1970s, remittances from Palestinians working in the Gulf states increased. Much of those funds were channelled into the construction of private housing. This triggered a surge in the rate of employment in construction. With the onset of the uprising in 1987, many Palestinians sought employment in the construction sector in Israel.

In Gaza Strip, the number of workers in construction decreased from about 4,500 in 1970 to about 2,400 in 1975, then increased to about 3,400 in 1980, reaching about 7,500 in 1989. The percentage of construction workers to total employment in Gaza Strip was 8.5 per cent in 1970, 7.3 per cent in 1980 and 12.6 per cent in 1989.

The number of Palestinian workers employed in construction activities within Israel increased from about 11,200 in 1970 to about 36,000 in 1980 and reached about 56,000 in 1989, representing an average of about 50 per cent of the total Palestinian labour employed in Israel. These figures also reflect increased economic activity in Israel and implementation of housing programmes aimed at meeting the housing needs of increasing immigration into Israel.

C. Gross domestic capital formation and the construction and housing sector

Gross domestic capital formation in the occupied Palestinian territory increased from about \$60.5 million in 1972 to about \$529.3 million in 1987, as shown in table 5.

The contribution of the construction sector to gross domestic capital formation in the occupied Palestinian territory was about 43 per cent in 1972 and 68 per cent in 1987. This increase was mainly owing to remittances of Palestinians working in the Gulf states, and their investment priority in

private housing. However, the ratio of private capital formation to gross domestic capital formation increased from almost 79 per cent of the gross domestic capital formation in 1972 to about 82 per cent in 1987. The share of building and construction works in total private capital formation increased from 55 per cent in 1972 to about 83 per cent in 1987. This indicates the significance of private investment in construction, which is mostly for housing purposes.

In the West Bank, gross domestic capital formation increased from about \$42.1 million in 1972 to about \$371.4 million in 1987. The contribution of the construction sector increased from about 48 per cent to about 70 per cent during the period. The share of private capital formation fell from about 85 per cent to about 82 per cent during the same period, while the share of building and construction works in total private capital formation increased from 54 per cent to 86 per cent.

In Gaza Strip, gross domestic capital formation increased from about \$18.3 million in 1972 to about \$157.9 million in 1987. The contribution of the construction sector doubled from 32 per cent to 64 per cent during the period. The share of private capital formation also increased from 63 per cent to about 83 per cent during the same period, while the share of building and construction works in total private capital formation increased from 51 per cent to 77 per cent.

Chapter III

CONSTRUCTION AND HOUSING 1967-1990

Since their occupation by Israel in 1967, the West Bank and Gaza Strip have experienced the pressure of the measures taken by the military government disrupting the normal process of their socio-economic development. The population of both regions have been deprived of their basic rights of residency and movement within their own territory. Those who were outside the territory at the time of occupation have not been accorded the option to return and reside permanently in their original home towns. Several constraints have also restricted the performance of the economy of the West Bank and Gaza Strip. Vast areas of land were confiscated, the use and development of land remaining in Palestinian hands restricted and large numbers of homes destroyed; in some cases entire villages were razed to the ground. 11/

A. Population distribution

With the exception of a few relatively large cities, the population of the West Bank and Gaza Strip is generally distributed among a large number of small communities. In addition, a significant proportion of total population, especially in the Gaza Strip, still lives in refugee camps.

In many localities in the West Bank and Gaza Strip, it is generally difficult to draw a clear distinction between urban and rural communities. The Population Census of the West Bank, conducted by the Government of Jordan in 1961, defined urban centres as: all towns and villages with a population (excluding refugee camps) of 10,000 people or more; all district centres regardless of the size of their population; and all towns and villages having a population between 5,000 and 9,999, in which two thirds or more of the male work force were not employed in agriculture. 12/

For census purposes, Beit Jala and Beit Sahur, where the population of each was less than 10,000, were combined with Bethlehem and counted among the urban centres. Accordingly, the urban centres of the West Bank were: Jerusalem and the surrounding Tur area, Nablus, Hebron, Bethlehem, Beit Jala, Beit Sahur, Ramallah, El-Bireh, Tulkarm, Jenin, Qalqilia and Jericho.

As of 1961, population movement was affected by trends in economic development and by the war of 1967 and its aftermath. For example, a number of villages today have larger populations than some cities. The population of Al-Ram village has grown from less than 1,000 in 1967 to approximately 20,000 in 1990, owing to the influx of Palestinians from the old city of Jerusalem. 13/ While Al-Yamun, a village to the north-west of Jenin, today has a population almost double that of Betunia, which is a municipal town near Ramallah. 14/ Moreover, some of the communities still classified as villages are increasingly performing urban functions, such as Al-Ram, El-Azariya, El-Samu' in the West Bank and Jabalia in Gaza Strip.

In order to classify communities into urban, semi-urban or rural, some basic characteristics have to be set. It has been suggested that "urban" communities be defined on the basis of the size of their population, the type of function they perform (administrative, commercial, educational,

services, etc.) or a mix of both. The minimum size of population that distinguishes urban communities varies from about 250 in Denmark or 1,500 in Ireland, to 40,000 in the Republic of Korea. United Nations statistics usually consider any locality with a population of 20,000 or more to be urban.

The process of urbanization in the West Bank and Gaza Strip should be examined from the viewpoint of both population size and function. Quantitative measurement of trends towards urbanization is always difficult, especially when there are very few reliable statistics, as in the case of the West Bank and Gaza Strip. Population estimates for these regions are based on the 1967 Israeli census, official statistics of the Israeli Ministry of Interior or the Military Government. Because of the significant population movement which took place during and after the 1967 war, further complicated by official Israeli statistics which exclude from the population count persons who reside more than one year abroad, the data is inaccurate. A different methodology for estimating the population is followed for the purpose of this study.

The proposed formula assumes that population estimates be based on pre-1967 population levels. Net population growth will be calculated on the basis of an assumed net annual population increase, regardless of place of residence of the original population. For example, the population of Tubas was 5,709 in 1961. Assuming a net population increase of 3 per cent per annum, the population of Tubas in 1990 was estimated to have been 15,482 regardless of whether the entire population is actually residing in Tubas.

The only official statistics available on population in the West Bank and Gaza Strip are those published by the census carried out by the Government of Jordan in 1961 and the census carried out by the Israeli authorities in 1967. The 1961 census provides population statistics for the West Bank only, while the 1967 census provides population statistics for both the West Bank and Gaza Strip.

No reliable information is available for Gaza Strip prior to the 1967 census. However, published official population estimates and UNRWA statistics may be used as a base for predicting future population trends in the Strip with reasonable accuracy.

For the purpose of identifying possible urbanization trends, communities in the West Bank and Gaza Strip are divided into four categories:

1. Urban communities

This category includes all communities with a definite urban role, and which clearly perform administrative, commercial and services functions. These communities are governed by major municipalities and have populations exceeding 10,000.

Under the 1990 conditions, this category included the West Bank cities of Jenin, Tulkarm, Nablus, Ramallah, El-Bireh, Bethlehem and Hebron. East Jerusalem also falls under this category, despite the fact that it has no Palestinian local government as a result of its annexation. In Gaza Strip, the communities which fall within this category are Gaza, Khan Yunis, Deir El-Balah and Rafah.

2. Semi-urban communities

This category includes all communities with a population between 5,000 and 10,000, in addition to all communities which are governed by a municipal or village council and perform marginal administrative, commercial or services functions. Examples are Qalqilia, Anabta, Tubas, Al-Ram, Yatta, Dura, Birzeit, Banizeid, Salfit, Jabalia.

3. Rural communities

This category includes all communities with a population of less than 5,000, and which perform no administrative, commercial or services function, but have an active population in agriculture. It also includes all communities which are not included in the above two categories, excluding the refugee camps.

4. Refugee communities

Refugee communities are defined as those communities residing in refugee camps throughout the West Bank and Gaza Strip. Members of these communities generally work outside the camps, in neighbouring towns or in Israel.

In 1961 the number of towns and villages in the West Bank, according to the official Jordanian census, was 481. The corresponding number according to the Israeli census of 1967 was 394. The difference lies in the fact that, in 1967, a number of small villages were counted as part of adjacent towns and villages. Most of these villages were in the north and south (more than 30 in Nablus sub-district and 25 in Hebron sub-district). The rest were in the sub-districts of east Jerusalem and Bethlehem with fewer in the sub-districts of Ramallah, Jenin and Tulkarm. In Gaza Strip, the number of towns and villages increased from 11 in 1961 to 17 in 1967.

Tables 6-A, 6-B, and 6-C detail the population distribution among the four categories for the years 1961, 1967 and 1990, respectively. It should be noted that estimates for 1990 presented here exceed those published by Israel CBS, for a variety of methodological and definitional reasons. From a close examination of those tables, no clear urbanization trend can be detected as a result of the significant movement from villages to larger towns. The typical factors affecting this kind of migration are: the increase in population beyond the carrying capacity of land in the villages and the creation of new jobs in towns. However, both these factors are less significant in the West Bank and Gaza Strip than elsewhere. Instead of leaving their villages and moving to the towns, Palestinians in the West Bank and Gaza Strip generally commute to work in neighbouring towns or in Israel, or emigrate to work abroad, often leaving their families in their villages. Also, the largest urban centre in the West Bank (East Jerusalem) is no longer accessible to potential immigrants, since its annexation by Israel in 1967.

According to the 1961 census, east Jerusalem, Nablus and Hebron, which are the capital cities of the three districts of the West Bank, had populations exceeding 37,000 each. Six towns had populations of between 10,000 and 20,000, seven towns had populations of between 5,000 and 10,000, while 33 villages had populations of between 2,500 and 5,000; the rest of the towns and villages had populations of 2,500 or less each. In Gaza Strip,

Gaza city had a population of approximately 100,000 in that year. Khan Yunis, Jabalia, and Rafah each had a population of 10,000 or more, while the remaining towns and villages each had a population of 5,000 or less. 15/

According to the 1967 census, east Jerusalem, Gaza, Nablus, Hebron, and Khan Yunis each had a population in excess of 20,000. The population of six towns ranged from 10,000 to 20,000; another 11 towns had populations ranging from 5,000 to 10,000; the population of 30 villages ranged from 2,500 and 5,000, while the remaining towns and villages each had 2,500 or less.

Other than the mass immigration to Jordan during the 1967 war, especially from the refugee camps in the Jericho area, the refugee communities both in the West Bank and Gaza Strip did not experience significant population movement except for some where people moved to neighbouring towns and villages, or were resettled on new grounds, like the residents of Jabalia Camp in Beit Lahia.

Some of the refugee communities are physically located within urban communities, such as the camps in Tulkarm, West Bank, and Al-Shati in Gaza Strip. Other camps are immediately adjacent to towns, such as Askar Camp near Nablus and Jabalia Camp near Gaza. These refugee communities may be counted as part of the urban population but may not necessarily be considered urban, since their final status has yet to be determined.

On the basis of the above definitions and the available information, it may be noticed that, in 1961, the urban population in the West Bank constituted about 33 per cent of the total population and lived in 13 towns. The semi-urban and rural population constituted about 49 per cent and lived in 468 towns and villages. The rest of the population lived either as refugees in 20 refugee camps or led an unsettled nomadic life.

In Gaza Strip, urban population in 1961 constituted 38 per cent of the total and lived in two cities, while the semi-urban and rural population constituted 17 per cent of the total and lived in nine villages. The refugee population constituted 45 per cent living in eight refugee camps.

In 1990 the total population of the West Bank was estimated (for purposes of this study) at about 1,605,000. The urban population, constituting about 25 per cent of the total, lives in nine cities and towns; the semi-urban population, amounting to 22 per cent, lives in 48 towns and villages; the rural population, comprising about 46 per cent of the total, lives in 448 villages, while the refugee population constituting about 7 per cent of the total lives in 20 camps.

In Gaza Strip, total population in 1990 was estimated at about 895,000. Urban population constituting 42 per cent of the total lives in four cities and towns, semi-urban population constituting about 8 per cent of the total lives in five towns and villages, rural population constituting about 20 per cent lives in nine villages, while the refugee population constituting about 30 per cent of total lives in eight refugee camps.

The distribution of population in the West Bank and Gaza Strip according to size of town in 1961, 1967, and 1990 is illustrated in Charts 1-A, 1-B, and 1-C.

B. Patterns of housing development

Traditionally, most of the Palestinian population lived in towns and villages surrounded by land they owned and used for agricultural purposes. These towns and villages were built in compact configurations, with the traditional form of buildings of massive stone construction and vaulted stone roofs. Along the coastal plains, especially in the central and southern regions of Palestine, buildings were generally constructed of concrete and concrete blocks because stone was not as readily available as in other regions of the territory.

Increases in population and improvement in living standards which occurred during the second half of the twentieth century resulted in massive development beyond the compact traditional towns and villages. This development has been generally characterized by lower overall density of construction often extended along main roads. New buildings are generally large, comprising two or more storeys and are mostly of reinforced concrete often faced with stone, specially in the West Bank.

A main characteristic of housing development in the West Bank and Gaza Strip, since their occupation in 1967, is the insignificant proportion of housing development undertaken by public agencies and the overwhelming share of housing built by the private sector for residential purposes, as shown in table 7. The pace of housing development increased rapidly between 1970 and 1976, as shown in table 8 and chart 2. During this period, an increasing number of Palestinians found employment in Israel, and remittances from abroad increased. In the following 10 years, however, the rate of housing development showed only a modest overall increase. Since the intifada, housing development in the West Bank and Gaza Strip has been adversely affected by serious legal, physical and financial restrictions.

Legal restrictions were imposed through a number of amendments to the existing Jordanian planning law number 79 of 1966. Military Orders vested planning authority in the Higher Planning Council which is composed solely of Israeli officers. The Military Orders also eliminated the district planning commissions and vested authority in the Higher Planning Council, thus eliminating any form of public participation in the planning process. The Central Planning Department has established complicated and lengthy procedures governing town planning and building permits. These cumbersome procedures have frustrated Palestinian efforts to embark on proper housing development programmes under difficult conditions of occupation.

Physical restrictions on construction and housing development included land seizure and confiscation under a number of pretexts, closure of large areas of land and prevention of expansion of municipal and village boundaries. These restrictions represented serious obstacles to community development in general, and to the construction and housing sector in particular. Many towns and villages have prepared and submitted planning schemes aimed at providing well-studied town development programmes. However, these plans were not approved, leaving most towns and villages without adequate areas for expansion and development.

In addition to these legal and physical restrictions, tight controls were imposed on the transfer of funds from Palestinians and donor organizations abroad and on the use of these funds in the occupied Palestinian territory. These restrictions have negatively affected the level of investment and the scope of activities in most sectors, including construction and housing. As a result, housing conditions are still characterized by serious overcrowding and inadequate facilities.

In municipal cities and towns, where building permits are issued by the municipal councils in their capacity as local planning committees, construction of housing encountered fewer obstacles than elsewhere. However, most cities and towns operate on the basis of old town planning schemes and within old municipal boundaries which are incompatible with current developmental needs.

In rural areas, the problem is severe. No appropriate planning scheme with adequate area has been approved. The only areas assigned for development were those designated as such by the British Mandate planning authorities in the early 1940s. Further restrictions within these areas have been imposed through the designation of new land uses which precluded development. In order to meet their housing requirements, people in these areas have tended to build on their own property regardless of its location relative to the existing village centre. Aggravated by the absence of adequate planning schemes for these villages, construction has tended to be sporadic, and often carried out without obtaining a permit. Construction has taken place alongside roads, whenever possible, to make use of available services and have access to amenities.

Construction in most villages has either followed a ribbon pattern or a radial pattern or a combination of both. Ribbon construction consists of long and narrow built-up areas on both sides of access roads, as in Qabalan and Beit Furik. Radial construction consists of single-family houses separated by large tracts of farms or orchards, as in most villages of the West Bank. Patterns of social behaviour, including the reluctance of village dwellers to leave their place of residence, the tendency of young couples to build their residences on family-owned land and the building activity aimed at preventing Israeli land seizures have affected building patterns and reinforced a trend of suburbanization, especially in the east Jerusalem district. 16/ Maps 3-A and 3-B show examples of the ribbon and radial patterns of development in the villages of Al-Azariya and Ajja, respectively.

Land areas of most refugee camps have been fixed at the time of their establishment. Construction in these camps has mostly taken the form of adding rooms to existing shelters at the expense of open courts or internal streets. In a small number of cases, construction of multi-storey structures has taken place within camps, especially in Gaza Strip.

It is important to note that while existing towns and villages have developed in the manner described above, certain villages such as Yalu, Beit Nuba and Immuas were completely demolished in the aftermath of the 1967 war.

C. Growth of built-up areas

Despite the difficult circumstances prevailing under occupation, the West Bank and Gaza Strip have witnessed increasing activity in construction and building, especially after 1973. As noted earlier, the private sector has been responsible for much of this activity both in the West Bank and Gaza Strip. It has been reported that while public sector construction accounted for about 50 per cent of all construction in the West Bank and Gaza Strip prior to 1967, it ranged from only 6 to 8 per cent in the mid-1970s and dropped to about 1 to 2 per cent in the 1980s, which was mostly in Gaza Strip. 17/

During the period 1976 to 1987, the share of construction for residential purposes was about 82 per cent in the West Bank and 85 per cent in Gaza Strip. The average percentage of all construction carried out by the private sector during the period 1980 to 1987 had reached over 99 per cent in the West Bank and 97 per cent in Gaza Strip, as shown in tables 7 and 8.

Growth of the built-up area is associated with the number of buildings and the number of dwellings constructed during a certain period of time. The total number of buildings constructed annually in the West Bank has increased from about 3,500 in the early 1980s to about 4,500 in 1987. In Gaza Strip, on the other hand, the number has dropped from about 1,800 to about 1,000 during the same period owing to scarcity of land and financial resources, as shown in table 9. The corresponding number of dwellings in the early 1980s was about 4,200 in the West Bank and 2,100 in Gaza Strip. In 1987, the number of dwellings constructed was about 5,800 in the West Bank and about 1,200 in Gaza Strip.

On average, the percentage of buildings in towns (urban and semi-urban areas) during 1982-1987 was 40 per cent in the West Bank and 80 per cent in Gaza Strip. The ratio of the number of dwellings in towns to the total number of dwellings was about 46 per cent in the West Bank and 79 per cent in Gaza Strip. The higher ratio for Gaza Strip reflects the more urban nature of its population distribution. In addition, actual percentages for the West Bank may be lower than those documented as a fair amount of construction in rural areas takes place without permits, thus, is not reflected in official statistics.

The ratio of the total number of dwellings to the total number of buildings in the West Bank has steadily increased from about 1.2:1 in 1983 to about 1.6:1 in 1987 in towns, while this ratio remained steady at 1.1:1 for the villages. The relatively higher ratio for towns indicates an increase in the number of multi-storey buildings. The tendency to construct multi-storey buildings to overcome the problem of land scarcity and high cost is dominant in towns with large populations and tight municipal boundaries. Such towns include Nablus, Jenin, Ramallah and Bethlehem.

In Gaza Strip, the ratio of the number of dwellings to the number of buildings rose from about 1.1:1 in 1983 to about 1.3:1 in 1987 for both urban and rural areas. The highest concentration of multi-storey buildings is found in Gaza City and Khan Yunis.

During 1980-1987, the average area per dwelling was about 126 square metres in the West Bank and 136 in Gaza Strip. The average number of rooms per dwelling during the same period was about 3.5 in the West Bank and 4.0 in Gaza Strip.

D. Housing conditions and facilities

The standard of housing conditions is characterized by a number of factors including:

- (i) Age of buildings;
- (ii) Type of building materials;
- (iii) General physical condition of buildings;
- (iv) Additions to existing buildings;
- (v) Kitchen and bathroom facilities;
- (vi) Availability of facilities such as running water, electricity, sewage, and telephone.

Data on the above factors for the West Bank and Gaza Strip are scarce. Available data are generally based on official Israeli statistics. According to these statistics, the number of buildings constructed annually in the West Bank and Gaza Strip averaged around 5,300, with about 72 per cent in the West Bank and 28 per cent in Gaza Strip. The corresponding total number of dwellings for the same period has been around 6,200 with about 63 per cent in the West Bank and 37 per cent in Gaza Strip.

The above figures are slightly adjusted to account for construction in East Jerusalem. However, it should be noted that these figures remain conservative as construction which is not officially permitted or registered is not reflected in the official statistics.

Owing to the restrictions imposed on the issuing of building permits, many individuals tend to carry out construction activities, especially for housing purposes, without obtaining the required permit. However, when unlicensed buildings are identified by planning inspectors, they are often demolished. During the last four years, the number of buildings demolished annually in the West Bank alone averaged some 250, representing 6.5 per cent of all buildings constructed annually. Financial losses resulting from this act are estimated at roughly \$7.5 million annually.

The distribution of the number of rooms per housing unit is given in table 10. It shows that during the period 1981-1987, the percentage of dwellings with three and four rooms reached about 33 per cent of the total for each category in the West Bank. The percentage of single-room housing units remained at about 1.5 per cent, while units with two to five rooms represented an average of 16 per cent for each category.

In Gaza Strip, the percentage of single-room housing units decreased from 4.7 per cent in 1981 to about 2.2 per cent in 1987, that for two-room units decreased from 16 per cent to 7 per cent, and for three-room units it decreased from about 21 per cent to 16 per cent. Four-room units averaged about 32 per cent, while the percentage of units with five rooms or more increased from about 27 per cent in 1981 to about 48 per cent in 1987, reflecting the pressure of population on the size of families and the scarcity of land as well as growing needs, declining marginal cost per room and increased income enabling people to acquire dwellings with more rooms.

Kitchen and bathroom facilities as well as the availability of electricity, water and sanitary services have improved significantly since the early 1960s. Table 11 indicates that the percentage of dwellings without kitchen facilities in the West Bank has decreased from 36 per cent in 1974 to about 10 per cent in 1985. The corresponding percentages decreased from 16 per cent to only 7 per cent in cities and urban towns, and from 46 per cent to 24 per cent in villages and rural communities. In Gaza Strip these percentages decreased from 14 per cent to only 4 per cent in all towns and villages, while remaining at slightly higher levels in refugee camps.

During the same period the percentage of dwellings without a bathroom decreased from 76 per cent to 47 per cent in the West Bank as a whole. In cities and urban areas the decrease was from about 54 per cent to about 22 per cent, while in villages and rural areas it declined from about 84 per cent to 56 per cent. In towns and villages of Gaza Strip, the decrease was from about 74 per cent to about 21 per cent, while in the refugee camps the percentage of dwellings without bathrooms decreased from about 89 per cent in 1974 to about 34 per cent in 1985.

In the West Bank, the percentage of dwellings without continuous electricity supply decreased from about 54 per cent in 1974 to about 37 per cent in 1985. The corresponding percentages for cities and urban areas decreased from about 8 per cent to about 2 per cent, while for villages and rural areas it decreased from about 72 per cent to about 54 per cent. In Gaza Strip, the corresponding percentages dropped from about 43 per cent to about 6 per cent in urban and semi-urban areas, and from about 86 per cent to about 6 per cent in refugee camps.

E. Investment and sources of finance

1. Private construction

As stated earlier, building construction in the West Bank and Gaza Strip is mostly for housing; such investment in construction is generally private. However, public investment in construction both in the West Bank and in Gaza Strip has contributed to the growth of this sector in varying proportions. The main sources of private investment and activities are the following:

(a) Individual housing

Traditionally, construction of individual housing units constitutes the bulk of private investment in the West Bank and Gaza Strip, particularly in the rural and semi-urban communities. Individual housing units are generally

constructed in such a way as to allow for future additions of rooms or complete floors. Often a housing unit is built to rest on columns with the space beneath used for agricultural purposes in villages or commercial purposes in towns, or reserved for future expansion.

Owing to the constrained financial situation prevailing in most of the rural communities in the West Bank and urban and refugee communities in Gaza Strip, it is common practice to live in buildings which are not completely finished. Additional rooms or entire floors are then completed while the building is in use.

Individual construction is usually carried out by small contractors who are generally charged with the responsibility of building, while the construction materials are supplied directly by the owner. In larger projects, such as the construction of multi-storey buildings in towns, either a single contractor or a number of subcontractors carries out the complete construction job, including the provision of both labour and construction materials.

During the period 1979 to 1986, the Joint Palestinian-Jordanian Committee extended 2,762 individual housing loans for a total of about \$47.5 million or JD 16.60 million. With the West Bank receiving 2,500 individual housing loans totalling about \$42.5 million or JD 14.9 million, and Gaza Strip receiving 262 loans valued at about \$5.0 million or JD 1.74 million. 18/

(b) Real estate development

In most cities and towns, private individual investment is directed towards housing, as well as commercial and industrial activities. In many residential buildings, the ground level is assigned for shops or other forms of commercial activities.

In recent years, an increasing number of individuals and institutions have become involved in real estate development activities including the construction and sale of residential buildings, especially in large cities such as Nablus, Ramallah and Gaza. These activities have been carried out by individual investors, informal partnership or formal real estate development companies.

Even though the concept of building and selling individual apartments is a relatively new one in the West Bank and Gaza Strip, it has been a common activity in Jordan and other Arab countries for a while. Palestinians in the occupied territory are becoming aware of it as one way of solving housing problems, especially in the absence of housing credit institutions.

(c) Local business development

Construction for commercial and industrial purposes, both by individual investors or by the business establishments themselves, has increased in the last few years. Several businesses, manufacturing companies and commercial firms have been increasingly involved in construction. The establishment of municipal industrial zones in the larger cities has been accompanied by increasing construction in these zones. Nablus, Ramallah and El-Bireh are the cities which have witnessed the largest activity in this field.

(d) **Cooperative housing**

Cooperatives in the West Bank are governed by the rules and regulations of the Jordan Cooperative Organization (JCO). A number of cooperatives were established in the late 1950s. The Post Office Employees Housing Cooperative was among the first to start operation in 1958, and was followed by the Jericho Housing Cooperative in 1960. However, the cooperative housing sector saw very little activity until the Hebron Housing Cooperative, which was funded in 1963, was reorganized in 1975, and then built in 1978 the first cooperative housing project since the occupation of the West Bank through a loan from the Jordan Housing Bank with a counter guarantee from the Jordan Central Bank. 19/

The cooperative housing sector was revived in the late 1970s and early 1980s as a consequence of the increasing interest in housing by the Joint Palestinian-Jordanian Committee, which put housing on top of its agenda. As a result, more housing cooperatives were established and attempts were made to register them in both the West Bank and in Jordan. The number of cooperatives registered in both places reached 38 while the number of cooperatives registered only in Amman reached 101, as shown in table 12. The difference is owing to the fact that the occupation authorities had imposed restrictions on housing cooperatives in order to curtail the transfer of money from outside and to reduce housing activity to a minimum, which was in line with a policy of restricting Palestinian development in general and land use in particular. 20/

The largest number of housing cooperatives was registered in Amman during 1980 to 1983, in an effort to qualify for the support of the Joint Committee or for loans from the Jordan Housing Bank. The number of housing cooperatives which actually benefited from loans by the Joint Committee was only 43, or 40 per cent of all cooperatives registered in Amman, with a total membership of about 1,415. The geographic distribution of the housing cooperatives which received loans is presented in table 13. 21/ Map 4 illustrates the distribution of housing cooperatives in the West Bank with respect to registration and project implementation. The total number of houses constructed under the cooperative housing programme was about 1,415; however, only about 400 of these have been completed and occupied, as shown in table 14.

2. Public construction

In 1968, about 37 per cent of building construction was undertaken by the public sector as a result of residual activity of public building prior to the occupation; about 58 per cent of public buildings was intended for residential purposes. However, as noted earlier, the proportion of public construction in the West Bank and Gaza Strip had declined during occupation to insignificant levels. During 1980-1987, the average area of total construction carried out by the public sector did not exceed 1.4 per cent in the West Bank, and 5.1 per cent in Gaza Strip. The average annual share of the public sector in construction during the same period was 0.6 per cent in the West Bank and 2.1 per cent in Gaza Strip. With few exceptions, public construction has been for non-residential purposes, such as schools, hospitals, government buildings, and the like.

In the mid-1970s, the occupation authorities in Gaza Strip sponsored a refugee resettlement project which involved a 99-year lease of land from the Government to those who were willing to leave the camps and demolish their homes for a nominal compensation. In most cases, the refugees had to bear the cost of construction and infrastructure, and some were able to obtain loans from the occupation authorities. 22/

Non-residential public construction in the West Bank and Gaza Strip has been carried out by municipal and village councils, a large number of charitable and other non-governmental organizations, Al-Awqaf and church groups and by UNRWA in the refugee camps. The non-residential building activities by the above-mentioned organizations range from small local clinics to large hospitals and from small office buildings to large commercial centres or industrial complexes.

Public building in the West Bank and Gaza Strip has been largely financed from external sources which contributed towards the implementation of public projects through a number of channels and on the basis of wide-ranging criteria. Among the major donors to local public projects have been the Joint Committee, the Arab Fund for Economic and Social Development, the Islamic Development Bank, UNDP, UNRWA, a number of private voluntary and non-governmental organizations and several Arab and foreign Governments.

The Joint Committee has extended financial support to a wide range of local institutions and individuals. In the area of building and construction, the Joint Committee has allocated funds for construction projects in several sectors, especially education, health, water, energy, tourism and public works. These projects have been implemented through 25 municipalities in the West Bank and 4 municipalities in Gaza Strip, a large number of village councils and village committees in the two regions, as well as charitable societies and non-governmental organizations.

The Arab Fund for Economic and Social Development and the Islamic Development Bank have concentrated mainly on the health and education sectors. They have donated funds to build new hospitals and schools and to expand existing ones. In addition, these two organizations have aided in setting up small-scale industrial projects initiated by a number of local organizations.

The United Nations Development Programme (UNDP) has been involved in the construction of infrastructure projects such as water and sewage systems, as well as contributing to the construction of schools, hospitals, municipal wholesale markets and water reservoirs.

The United Nations Relief and Works Agency (UNRWA) has been involved in various kinds of construction in the refugee camps. Its activities include the construction of schools, clinics and other types of buildings.

A number of American and European voluntary organizations, such as American Near East Refugee Aid, Catholic Relief Services, Save the Children Fund and others have contributed to the construction of a number of municipal and other commercial projects. Among these projects are industrial complex zones, slaughterhouses, agro-industrial units and clinics.

In addition to the above-mentioned donor organizations, a number of Governments have bilaterally contributed to the construction of projects in different fields and geographic locations. In many situations, funds for a particular public project had come from more than one source with a varying degree of coordination between the different contributing sources.

F. Employment in construction and housing

The total number of Palestinian workers employed in the construction sector in the territory and Israel in 1970 was about 24,000. Of this total, about 35 per cent were employed in the West Bank, 17 per cent in Gaza Strip, and 48 per cent in Israel. 23/

By 1975, the total number of workers employed in construction had almost doubled to about 46,000. This increase was owing to a significant rise in the number of workers from the West Bank and Gaza Strip employed in Israel, in general, and in construction, in particular. The number of construction workers from the West Bank employed in construction within Israel increased from about 8,400 in 1970 to 22,200 in 1975. Correspondingly, the number of workers from Gaza Strip employed in construction within Israel had increased from about 2,800 in 1970 to 13,800 in 1975.

During 1970 to 1975, the ratio of construction workers from the West Bank and Gaza Strip working in Israel increased from 48 per cent to 78 per cent of the total construction work force in the West Bank and Gaza Strip. Since 1975, the number of construction workers had increased steadily, reaching roughly 76,000 in 1989. The distribution of these workers according to their place of work has remained almost constant, with about 36 per cent working in the West Bank (including Jerusalem), 7 per cent in Gaza Strip and 57 per cent in Israel, as shown in table 15.

The ratio of the construction labour force to the total labour force of the West Bank and Gaza Strip was about 14 per cent in 1970, reaching about 22 per cent in 1975, then increasing to 27 per cent in 1989. Correspondingly, the ratio of the construction labour force to total labour force had increased from about 8 per cent to 11 per cent in the West Bank, and from 5 per cent to 12 per cent in Gaza Strip, averaging roughly 50 per cent of the total West Bank and Gaza Strip labour force working in Israel.

After 1987, as a result of the conditions created by the Palestinian intifada and the decline in employment opportunities in the occupied territory, the percentage of the construction labour force working in Israel had increased to about 60 per cent of the total construction labour force in the West Bank and Gaza Strip. The corresponding ratio for the West Bank had increased from 38 per cent in 1985 to 49 per cent in 1989. However, the ratio for Gaza Strip had decreased from about 81 per cent in 1985 to 74 per cent in 1989 as a result of the relatively more restrictive conditions imposed on Gaza Strip residents. While essentially no workers from Gaza Strip went to work in Jerusalem, about one fourth to one third of the West Bank construction workers worked in Jerusalem.

While members of the labour force in the West Bank and Gaza Strip are either self-employed or employees working for daily wages, most of the construction labour force in Israel are employees working for daily wages.

The average daily wages for construction workers during 1980-1989 in the West Bank, Gaza Strip and Israel are shown in table 16 for purposes of comparison. In general, wages earned by construction workers in the West Bank and Gaza Strip are lower than those earned in Israel. Coupled with the more limited job opportunities in the West Bank and Gaza Strip, people have been prompted to work in Israel, despite the hardships they face in transportation, accommodation, and work permits. In addition to those who are directly employed in construction, a significant number of workers were also employed in related industries. Among those are stone quarrying and cutting, carpentry, metal work and plastics.

Information on daily wages, taken from official Israeli statistics, indicates that the average wages are generally higher than actual wages, both for the West Bank and Gaza Strip and for Israel, as many workers are employed informally usually at much lower wages than those that appear in official statistics.

Chapter IV

LIMITATIONS AND CONSTRAINTS

The housing and construction sector in the occupied Palestinian territory has undergone many changes since 1967, owing to the restrictive policies imposed on residents. These include: confiscation and expropriation of land, prevention of needed expansion of development areas, restrictions on building materials industries, prevention of the establishment of credit institutions and limitation on the transfer of funds from Palestinians working abroad. In addition, a number of indigenous factors have affected the nature of this sector's development, most important of which is inadequate planning and control over construction activities both technically and financially.

Lack of accurate quantitative information on the construction and housing sector makes it difficult to assess performance. However, some available data and field reports by the author allow for an evaluation of the impact of those constraints on the development of the sector.

A. National housing strategy

In most countries, housing strategies are influenced by the entire range of economic and social policies formulated at the national level. The direct relationship between economic policies and national housing strategies are now appreciated, and many countries seek to set up an integrative framework. Typically, developing countries with development programmes/plans have attempted to link their housing strategies to their economic development goals, in order to achieve an improved spatial distribution of population and economic activity.

Developing countries with market-oriented economies are increasingly engaged in formulating national strategies aimed at mobilizing their scarce resources to accommodate high rates of population growth and urbanization, creating an increased demand for housing.

Housing requirements in the occupied Palestinian territory have been identified. Some attempts have even been made to estimate the projected demand. ^{24/} However, a housing strategy, as an integral part of a national economic and social development programme and strategy, has not been formulated.

In the early 1980s, the Joint Committee initiated a programme aimed at supporting housing activities through extending credit to individuals and cooperatives. The value of each loan was JD 7,000 or \$20,000. Loans were interest-free to be repaid in 15 years, with a grace period of 2 years. The objective of this programme was to meet increased housing needs, and to protect land from expropriation.

Priority was given to applicants from Jerusalem so as to enable them to stay in the city, families of martyrs and political prisoners, individual families and housing cooperatives which obtain building permits especially in areas threatened with possible expropriation. Under this programme, the Joint Committee allocated JD 26 million or roughly \$76 million between 1979 and 1986. This amount included loans extended to 2,762 individuals and

1,415 members of housing cooperatives. However, a significant portion of loan recipients never completed their housing units, and a large number of these units remain uninhabited.

The housing and construction sector was featured prominently in the Programme for Economic and Social Development in the Occupied Territories (1986-1990), prepared by the Jordanian Ministry of Planning in November 1986. The programme considered this sector central to its activities, on grounds that it keeps the Palestinian people tied to their homeland, protecting their land against expropriation, contributing to capital formation, stimulating widespread linkages of economic activity and having direct impact on employment and job creation. 25/ The programme's stated objectives were: the construction of new housing units to meet increased demand; to encourage widespread regional distribution so as to mitigate Israeli expropriation of Palestinian owned land; to activate a multiplicity of construction activities in order to generate job opportunities in the occupied territory so as to reduce dependence on the Israeli market. At the same time, the programme tried to improve housing standards by decreasing room occupancy rates and upgrading housing services and facilities.

The Jordanian programme estimated that an investment of about JD 96 to 164 million equivalent to \$280-475 million will be required for residential construction to cover the projected increase above the level which will be assumed by the autonomous efforts of the private sector. Assistance to non-residential construction in the various sectors was estimated by the programme at about JD 65 million equivalent to \$180 million. The programme was not implemented owing to developments leading to the severance of legal and administrative ties with the West Bank.

The programme for development of the Palestinian national economy for the period 1994 to 2000 (PDP), published by the Palestine Liberation Organization in July 1993, envisages the launching of vast housing programmes, largely by the private sector. It is estimated that a total of 185,000 housing units for an average household of six persons are needed between 1994 and 2000 in order to absorb the natural rate of increase in population and replace poorly built, unsafe and overcrowded housing including those in the refugee camps for an expected 500,000 returnees. A total of \$3,750 million is earmarked for public housing programmes and \$2,039 million for other building activity including related machinery. The housing and construction sector is the single most important sector to which almost 50 per cent of the total investment allocation in the programme has been earmarked. 26/

B. Housing finance

Since 1967, the absence of formal Palestinian credit facilities in the occupied Palestinian territory was a major constraint on development activities in general, and housing in particular. This situation was partially addressed through the housing loan programme implemented by the Joint Committee during 1979-1986, as mentioned earlier. Despite the reopening of the Cairo-Amman Bank in 1986, with branches in Nablus, Ramallah, Jenin, and Hebron, there has been no finance or credit facilities for housing. The Cairo-Amman Bank, which operates in the West Bank and the Bank of Palestine which operates in Gaza Strip have not been able to extend credit or mortgage facilities. Israeli banks offer prohibitive credit programmes to Palestinians

in Jerusalem. Moreover, the absence of local Palestinian financial institutions, capable of extending credit for housing purposes, continues to represent a major obstacle to the development of the construction and housing sector, especially for low-income community groups.

C. Planning and managerial skills

Construction activities in the occupied Palestinian territory suffer from inadequate skills in planning and implementation. The lack of appropriate standards and specifications for residential as well as non-residential building is the most common problem in planning. In the early 1980s, the Engineers Association in the West Bank attempted to define a set of standards and specifications along the lines which were being followed by the Engineers Association in Jordan. This attempt yielded no tangible results.

The absence of standards and specifications is further complicated by the varied training background as well as experience of the planners, architects and engineers who are involved in the construction sector. Some have been educated at Arab or local Palestinian universities, others at American and western European institutions, while many had studied at the institutions of eastern Europe, India and Pakistan, among others. Most senior architects and engineers have acquired their experience locally, many while employed in municipal or governmental institutions. Very few senior architects and engineers have acquired technical skills and experience abroad.

While engineering and other construction-related activities have been institutionalized in many countries so as to increase efficiency and improve performance, no such attempt has been possible in the occupied Palestinian territory. The Engineers Association in Jordan, for example, has emphasized specialization in trade and function, separation between consulting and contracting and pre-qualification for certain operations; the profession in the occupied Palestinian territory has operated freely, without any accountability.

In addition, the local construction market has provided very limited opportunities to design and build complex large-scale projects. Local architects and engineers have thus not had opportunities to work on such projects and acquire the concomitant skills. In this respect, significant proportions of such local projects have been planned, designed and supervised either by expatriate Arab firms (the new campuses of Birzeit and Najah universities) or by Israeli planning and engineering firms, as has been the case with a large number of municipal and public projects in the West Bank and Gaza Strip.

Most architects and engineers in the occupied Palestinian territory operate individually. Only a few firms have been established which are capable of comprehensive planning and design of large-scale construction projects. In the area of residential construction, the planning, design, management and supervision are generally carried out by individual architects and engineers with little control over the implementation process. This is a particular problem in rural areas, where much of the activity is performed directly by the owner or by builders who rely mostly on practical experience rather than professional practice.

Residential construction in urban areas is characterized by a very wide range of standards and practices. Depending on the owner's financial capability and the architect's taste and style, one can find in cities such as Jerusalem, Nablus, Ramallah and Gaza a wide range of structures with varying degrees of conformity to a coherent framework. In addition, the majority of contractors and subcontractors continue to operate traditionally with little attention to modern construction techniques, especially in project management and implementation. However, with the increase in demand for quality in construction, there has been an improvement in the standard of skills of some contracting firms.

D. Control and coordination

One of the major problems of the housing programme implemented by the Joint Committee between 1979 and 1986 was the minimum control provided over the implementation of the housing projects. The Joint Committee had appointed regional representatives to oversee the progress of construction in the different projects and authorize payment of the housing loan. Under this arrangement, funds expended were not commensurate with work undertaken. In many cases, the entire loan was spent before completion of construction. Many of the housing units commissioned under this programme were not completed because loan recipients attempted to build housing units much larger than those planned and hence could not meet their financial obligations.

It was observed that in some programme-supported cooperative housing projects, the amount of the loan represented only about 15 per cent of the cost of the structure and almost 8 per cent of the cost of the finished building. This indicates the magnitude of shortfall between design and actual construction cost, as loans were intended to cover 30 to 50 per cent of the total cost.

E. Israeli restrictions on land use

Land-use planning, land expropriation, and Jewish settlements are three interlocking aspects of one policy aimed at linking the occupied territory to Israel. Land-use planning policy has gained importance in recent years as the Israeli Government exhausted "legal" means devised to expropriate land. By 1986, over 50 per cent of the land of the West Bank and over 30 per cent of that of Gaza came under its control. This policy received further impetus with the intifada, as mounting pressure on Israel to reach a settlement with Palestinians lent urgency to its efforts to integrate the territory into Israeli schemes. Even though there was some press coverage of houses demolished for "security" reasons, there was seldom mention of demolitions on "planning" grounds. Likewise there was little coverage of the unilaterally implemented urban planning schemes for land use that restricted Palestinian growth and development so as to encourage "voluntary" emigration. 27/

1. Planning law and master plans

Over 10 major military orders have been issued by the Israeli authorities to amend the existing planning laws and regulations. Resulting from these orders is the extreme centralization of the planning process and an increase in the planning power of the occupation authorities. Military Order 393, issued in 1970, authorized the military commander to forbid, halt or impose

conditions for construction. Military Order 418, issued in March 1971, vested planning authority in the Higher Planning Council, composed only of Israeli officials, allowing it extensive power to suspend any plan or licence anywhere within the West Bank, including the municipalities which theoretically retained the authority to grant permits. Although ultimate authority rested with the Higher Planning Council, the Central Planning Department, its executive unit, has been directly involved on a day-to-day basis.

Military orders also impeded local participation in the planning process. Military Order 418 formally eliminated the input of all "non-official institutions" (e.g. Palestinian institutions) at all levels and abolished district planning committees. The committees' functions were assumed by the Higher Planning Council and the village planning committees. The latter were replaced by a single "local Committee for Planning and Construction" composed of representatives from the Military Government (Civil Administration) involving no local participation.

2. Regional and road plans

Having altered the existing planning law through military orders, the Israeli authorities were able to proceed with their efforts to integrate the territory into their Israeli system. In 1982, a regional master plan for the Jerusalem area was announced, including local plans for towns and villages in the Jerusalem area.

The Jerusalem plan, referred to as Partial Regional Master Plan 1/82, was presented as an amendment to the Jerusalem District Regional Master Planning Scheme of 1942. It covered an area extending from Dura Al-Qara in the north to Beit Fajjar in the south, and included the urban towns of Ramallah, Al-Bireh, Bethlehem, Beit Jala, and Beit Sahur, in addition to 44 Arab villages and 7 refugee camps. The total land area covered by the plan was about 446,270 dunums or 110,272 acres. Excluded from the plan were the 70,000 dunums (encompassing east Jerusalem and a number of villages) annexed by Israel in 1967. The 1982 regional plan was based on a projected Palestinian population of 272,000 for the year 2002, which was less than the 275,000 Palestinians actually residing within the area in 1982. The plan divided the area into six zones:

Zone	Area (dunums)	Per cent
Arab development	58 940	13
Special use and future planning	76 600	17
Nature reserve	28 820	7
Agricultural	263 570	59
Roads	18 340	4
TOTAL	446 270	100

The "Arab development" zones comprise densely populated village cores beyond which no construction or development activity is permitted without the explicit approval of the Higher Planning Council. Field investigations and aerial photographs show that parts of existing Palestinian communities fall outside the boundaries set by the authorities for the "Arab development" zone. Land designated for "future planning" or "agriculture" frequently includes

built-up areas of medium to low density. Land in the "agricultural" zones may be used by its Palestinian owners. However, land designated as "non-agricultural" is subject to approval by the Higher Planning Council. All construction has been halted in the areas designated for "future planning", which were often built-up areas near Jewish settlements.

The most stringent control applies to "special use" and "nature reserve" zones, which in effect are permanently removed from Palestinian hands even though title did not immediately change. According to Meron Benvenisti, Director of the West Bank Data Base Project, the "special use" zones, which are frequently adjacent to Jewish settlements "are designated implicitly for Jewish settlements", while the declaration of nature reserve areas "is considered by the authorities an integral part of the land seizure programme". 28/

Another component of Israel's land-use planning in the West Bank was the 1983 "Partial Regional Road Plan No. 50", a road network based on east-west axes linking the existing and proposed Jewish settlements to one another and to the major metropolitan areas within Israel. The grid, clearly aimed at promoting Jewish settlement in all parts of the West Bank and at facilitating their integration into the Israeli system, bypassed Palestinian communities, isolating and fragmenting them, thus restricting their growth. The plan further allowed for the expropriation of large tracts of land, not only for roads, but also to accommodate unprecedentedly wide set-backs (from 100 to 150 metres on each side) stipulated in the plan as a means of checking Palestinian expansion.

3. Local plans

At the same time that the Partial Regional Master Plan for the Jerusalem district was published by the planning authorities, a number of local town planning schemes were prepared for towns and villages in the vicinity of Jerusalem.

The local plans divided each town or village into the same zoning categories as those of the regional plan: "village development", "future planning", "agricultural", "nature reserve" and "special use". Like the regional plan, local plans completely disregarded the facts on the ground. In the village of El-Azariyah, for example, the Israeli plan allowed Palestinian development on only 650 dunums of the 1,980 dunums that were already built up. Professor A. Coon from the Centre for Planning at the University of Strathclyde, commenting on these plans, wrote:

"no explanation was provided for the rationale of these plans, nor for the level of land allocation. It is clear that the purpose of the plans is not to provide for development but to confine development. The plans would allow 'infill' development to take place, but they make no attempt to anticipate the future scale or diversity of development needs of these communities which were experiencing unprecedented rapid development at the time. Furthermore, the arbitrary plan boundaries do not include a significant amount of development which had already taken place outside the boundaries of the plan." 29/

4. Public response

The regional and local land-use planning schemes and regional road master plan made public from 1982 to 1985 met with strong Palestinian public opposition. Individuals whose property was affected submitted legal petitions. Municipal and village councils as well as professional organizations called for press conferences and public meetings to explain the dangers of the proposed plans. In 1983, representatives of the various districts established the "committee to follow up objections against the proposed Regional Road Master Plan". Letters were sent to representatives of various countries and to the United Nations, and numerous articles condemning the plans were published in the local press. 30/

Between 1985 and 1987, over 55 counter proposals of village plans were drawn up on behalf of the Palestinian local councils by Palestinian planners according to international guidelines and criteria of town planning which reflect the true development requirements and future needs of the affected communities. Not a single plan was approved, and all negotiations on this issue were halted with the outbreak of the intifada.

5. Building permits and demolitions

In the absence of legally enacted land-use plans, the primary instrument for controlling Arab growth has been the granting or withholding of building permits. Building permits are necessary for any construction, but require the approval of the Central Planning Department and the Higher Planning Council, if they fall outside the jurisdiction of municipal councils.

During the last two months of 1986 and most of 1987, no building permit was issued in the West Bank, as the Central Planning Department was closed to the public owing to some irregularities. In 1988, the 994 building permit applications filed were processed but only 221 permits were granted. The Higher Planning Council Subcommittee for Inspection ordered the demolition of houses constructed without permits.

The Higher Planning Council and the Central Planning Department maintained tight control over both the granting of permits and destruction of buildings on planning grounds as security demolitions were ordered by the military. The 1986 report of the Israeli State Comptroller observed that the planning authorities preferred to retain a "free hand" in granting building licences. In commenting on the report, Meron Benvenisti remarked that the authorities seemed determined to use planning as an instrument of reward and punishment for political and security purposes. 31/

During the intifada, the planning authorities stepped up their house demolition operations, especially in towns and villages where the intifada activities had been particularly intense: in a number of cases, such as in Silet El-Harthieh, Beita, and El-Esawiya, houses were demolished on "planning grounds" immediately following punitive demolitions in the same localities for alleged intifada activities. Thus, the total number of houses demolished by the planning authorities in the West Bank and Gaza Strip, on the grounds that they were built without permits, numbered at least 255 in 1988, 331 in 1989 and 145 in 1990 (excluding those demolished on security-related grounds,

numbering 221 in 1988, 368 in 1989 and 206 in 1990). This represents an increase of about 250 to 300 per cent compared to the three years prior to the intifada.

6. Recent developments

The changing political climate entrained by the intifada gave new impetus to tightening control over the occupied territory in anticipation of international pressure to relinquish land in exchange for peace. At the same time, the Palestinian preoccupation with the day-to-day struggle of the intifada gave the Israelis a new opportunity to press through the kinds of land-use plans they were unable to pass in the face of organized Palestinian public opposition during the period 1982 to 1985. In 1989, the occupation authorities accelerated their efforts to execute a significant portion of the planned road network, with emphasis on those segments that bypass Palestinian towns and villages, to facilitate the movement of Israeli settlers.

On 2 February 1989, the Higher Planning Council approved Israeli plans for 11 Palestinian villages. At that time, three of the plans for Nahalin (Bethlehem district) and Hizma and Shibtin (both in the Ramallah district) were formally deposited. A fourth plan, for Kufayr (Jenin district), followed shortly thereafter. Starting in November 1989, seven more plans were deposited for the towns of Talfit, Arranah, Araqa, Kufr Qud, Arbuna and Raba, all in the Jenin district, and for Talluza in the Nablus district. The plans, prepared by the Central Planning Department, aimed mainly at fixing a tight line around the built-up areas beyond which no building or other development would be allowed. In March 1991, the number of villages for which such plans were announced totalled 100. All those plans strengthened Israel's position as they provided a legal barrier to Palestinian building development in the occupied territory.

F. Production of building materials

Building materials constitute the single largest input to construction and may account for as much as 40 to 50 per cent of the total cost and 80 per cent of the direct cost (labour and materials) of construction.

While some of the basic building materials in the occupied Palestinian territory are or may be produced locally, a large proportion of items, such as Portland cement, steel, aluminum, lumber and glass are imported either from or through Israel. Some of the construction materials produced locally include stone, marble, concrete, cement block, terrazzo floor tiles, plastics, PVC pipes, concrete pipes, cast iron foundries, electrical control boards, galvanized steel water tanks and solar heating equipment. These industries use local and imported raw materials in their production processes.

The major building material industry in the West Bank is mining and quarrying for the production of stone and gravel. Stone and marble products are used extensively in urban buildings, and to a lesser degree in rural ones. In Gaza Strip, where there are no quarries, stone from the West Bank has been used in a few cases in the construction of villas in the city of Gaza.

Quarrying and stone-cutting industries are distributed throughout the West Bank. Major quarrying sites are located near Jenin, Nablus and Tulkarm in the north, around Ramallah and Bethlehem in the centre and around Bani Na'im and Yatta in the south.

Marble, tile and cement block industries are also distributed throughout the West Bank and Gaza Strip, especially around larger towns and villages. They are generally highly mechanized production units which provide finished products for the local market and for export to Jordan and other Arab countries.

The total number of stone quarrying units is estimated at around 145 employing about 450 workers, the majority of whom are self-employed. Of these, 82 units or 57 per cent are in the Hebron district, 54 units or 37 per cent in the Nablus district and the remaining 9 units or 6 per cent are scattered throughout the Ramallah and Bethlehem areas of the Jerusalem district.

The productivity of stone-quarrying sites varies from an average of 4 cubic metres per day in the Ramallah sub-district to an average of 12 cubic metres per day in the Hebron district. Total annual production is approximately 310,000 cubic metres with an estimated value of \$45 million. The output of these units is either sold locally or exported to the Jordanian and Israeli markets after being processed by the stone-cutting and marble-polishing units.

There are 15 quarrying enterprises that produce crushed aggregates for construction. Of these, nine are in the Ramallah sub-district and six are in the Nablus district. Total employment is estimated at around 350 workers. The estimated production is 3.5 million tons per year at a total estimated value of \$15 million. About 75 per cent of total production is marketed locally and the rest is exported to Israel.

The number of stone-cutting operations is estimated at around 130. About one third of all operations is in the Nablus district, one third in the Hebron district while the rest are distributed almost equally between Ramallah and Bethlehem sub-districts. Total employment stands at 1,600 workers, and total annual production is estimated at \$70 million.

A recent industrial survey of the West Bank, conducted by researchers from An-Najah University, found that the total number of industrial units which employ 8 or more workers was 425, for a total of 19,000 workers. Of these, 144 units produce construction materials mainly in stone quarrying, stone cutting, and manufacturing of cement block, terrazzo tile and marble. These latter units are distributed as follows:

Jenin	13	Ramallah	35
Tulkarm	2	Jerusalem	13
Nablus	25	Bethlehem	7
Hebron	49		

According to the survey, industries employ workers as follows:

No. of workers	No. of production units
8 - 10	66
11 - 20	60
21 - 30	12
31 - 40	1
41 - 50	2
51 - 60	1
61 - 100	-
> 100	<u>2</u>
	144

The survey concluded that 24.5 per cent of the total number of workers in industrial units employing eight or more workers are engaged in the building materials industries; moreover, 15 per cent of all workers in units employing less than eight workers are in the building materials industries. 32/ In Gaza Strip, a number of industrial units produce tiles and cement blocks. Only four of these units are known to employ more than eight workers. Other industries found in the Gaza Strip include ironmongery and woodwork.

Like most activities in the occupied Palestinian territory, the building materials industries suffer from restrictions on expansion, heavy tax and Israeli competition. In addition, restrictions on the establishment of major building materials industries, as in the case of a proposed cement factory in Hebron, continue to put a strain on this sector, making it dependent on imports. Moreover, refusal to allow the implementation of the much needed sea port project in the Gaza Strip represents a serious obstacle to development of the building materials industries as well as other sectors of the economy.

G. Transfer of funds

Restrictions on the transfer of funds into the occupied Palestinian territory have been detrimental to the growth of the construction and housing sector. Construction of non-residential buildings by local institutions and non-governmental organizations has been almost entirely dependent on funds obtained from external sources. Requirements to identify the source of funding, restrict the amount and obtain a permit for the transfer of funds have limited the availability of financial resources allocated for construction.

Residential construction, both by individuals and cooperatives, has been constrained by limitations imposed on the transfer of funds and other related activities. Many housing cooperatives registered in Jordan qualified for loans from the Joint Committee. However, the housing projects could not proceed because they could not be registered in the occupied Palestinian territory. Also, many individuals eligible for housing loans experienced difficulties in loan processing as well as in transferring funds from abroad. During the 1980s, and especially during the intifada, it became increasingly difficult for Palestinians working abroad to transfer money to their families in the occupied territory, a large portion of which would be invested in construction. Such transfers were limited to JD 200 or \$500 per month. 33/

Chapter V

THE PRESENT HOUSING SITUATION

When a large segment of the population is obliged to occupy housing units where living conditions are below minimum standards an absolute housing problem exists. When members of a community cannot improve their housing conditions to levels that are considered socially acceptable by the community, then there is a relative housing problem. ^{34/} Among the factors which contribute to the housing problem in the occupied Palestinian territory are the conditions of available housing stock, occupancy densities, income levels, tenure of land and building and cost of new construction. These factors are briefly discussed in the following sections.

A. General characteristics of the housing stock

The characteristics of the housing stock in the occupied Palestinian territory are not homogeneous; there are wide variations in geographic location and type of community. In the northern and central parts of the West Bank (Nablus and Jerusalem districts) towns and villages tend to retain the traditional core structure with relatively lower levels of sporadic periphery expansion than in the southern part (Hebron district). The "khirbeh" communities, whether satellite communities around existing towns and villages or completely detached agricultural settlements, are frequently found in the Hebron district but are rare in the rest of the West Bank.

The distinction between towns and villages is less clear in Gaza Strip than in the West Bank, owing to the small land area of the Strip and the relatively high population density. Refugee camps constitute integral parts of a higher proportion of towns and villages in the Strip than in the West Bank.

Overcrowding is high in all communities. In addition to refugee camps, it affects most low-income families in towns and villages in the occupied Palestinian territory. The problem of overcrowding could be addressed directly by constructing new buildings, up-grading existing buildings with the addition of rooms or floors and by the rehabilitation of old abandoned buildings.

In spite of overcrowding, many old houses are being abandoned either because they become unfit as shelters or are insufficient in terms of size and facilities. The old structures are replaced by either new houses built next to them or outside the village core. The move outside the village centre is generally determined on the basis of land ownership regardless of available services, or the purchase of land near available services wherever possible.

1. Abandoned and vacant buildings

Most towns and villages in the occupied Palestinian territory have buildings which are partially or completely abandoned owing either to the deteriorating conditions of the building or as a result of residents moving to better houses with more modern facilities. These abandoned buildings are found in the old parts of towns and villages. Usually, in rural areas, these buildings are converted into storage space for hay, farming tools and household utensils. Some people are returning to these buildings as a result

of the increasingly limited housing supply in some areas and the deteriorating economic situation in the occupied territory in general. In Nablus, for example, some of the buildings which had been abandoned for a long time are either being rented or occupied by squatters.

In the refugee camps, especially around Jericho, a large number of buildings has been abandoned either because the residents emigrated or moved out of camps as a result of improved income or new jobs elsewhere.

In addition, when areas have a significant number of buildings which are either new or in usable condition but are completely or partially vacant, the owners of these buildings are either not willing to rent at prevailing prices, or are residing abroad and wish to keep these buildings for their use when they return. Some of the buildings within this category belong to the housing cooperatives which initiated construction in housing projects in the early 1980s but were unable to finish the work. A CEP survey in 1986/1987 showed that the percentage of abandoned buildings in the sample was about 6 per cent in small villages and 8 to 12 per cent in towns and larger villages.

2. Traditional buildings

The centre of every town and village in the West Bank contains a number of old buildings, built 50 to 100 years ago, constructed of stone and mud. These consist of several rooms with common facilities, to be shared by extended families. Traditionally, these buildings consisted of a court surrounded by a number of rooms, with external kitchen and toilet facilities. Owing to improved living standards, coupled with a desire for privacy, people have gradually moved out of these buildings to houses which they owned or rented that had better facilities in the new quarters of towns and villages. In most cases, elderly parents were left behind.

3. Renovated buildings

Owing to the socio-economic conditions prevailing in the territory, an increasing number of families both in urban and rural communities have resorted to renovating and upgrading old buildings to meet their pressing housing needs. Renovation and upgrading activities take place both within the core areas of towns and villages as well as beyond. The renovation may involve internal and/or external works.

In towns such as Jenin, Nablus, Tulkarm, Ramallah, Jerusalem, Bethlehem and Hebron, many old buildings have been internally renovated. This work involved the removal of walls and rearrangement of the architectural layout including the construction of a modern kitchen and toilet facilities, the installation of heating systems and modern electric lighting and power networks. In addition, the number of old buildings which were expanded horizontally or vertically increased in an effort to alleviate overcrowding.

4. New buildings

Construction for residential purposes had continued in the occupied Palestinian territory with varying intensity during the period 1967 to 1990. New buildings may be characterized by a number of factors, including locality, socio-economic conditions and planning regulations.

In the West Bank, new housing units in urban communities took the form of detached houses, semi-detached houses or apartment buildings, generally connected to available services and infrastructure such as roads, water, electricity and sewage systems. Construction materials are largely stone and concrete.

As a result of restrictions on town planning activities and refusal to approve requests for expanding present municipal boundaries, land prices rose remarkably in most towns. This situation has increased the trend to build multi-storey buildings in order to improve the efficiency of land use and reduce the total construction costs of new buildings.

New buildings in urban and some rural communities are multi-purpose. Multi-storey buildings in both residential and commercial zones usually include shops at street level, stores below street level and several floors for residential and/or office purposes. In rural areas, construction is largely in the form of detached houses. Some multi-storey buildings may be found in some of the larger villages. Buildings are generally constructed of cast concrete or concrete structure and cement blocks with or without plastering. Many of the new buildings in rural areas are raised on columns to avoid present planning and building restrictions and allow for future expansion. The empty space between the columns is generally used for storage purposes. Most new structures in rural areas have been built on previously owned land. Therefore, they are not always close to existing infrastructure and generally tend to be scattered.

A significant proportion of the new buildings which were constructed under the cooperative housing programme in the early 1980s remains either unfinished or vacant. Although some members of the housing cooperative communities have managed to complete the construction of their houses, the surrounding houses remain unfinished and the physical infrastructure non-existent.

In Gaza Strip, most new construction takes the form of a multi-storey building because of the population density and scarcity of land for development. In both urban and rural areas, concrete and/or cement blocks with or without plastering are used for construction. Because of financial constraints, many new buildings are only partially finished. People living in these buildings complete the finishing work in stages, depending on the availability of financial resources.

In the refugee camps of the West Bank and Gaza Strip, the construction of new buildings is generally limited to the addition of one or more rooms to existing buildings, as a result of both insufficient income and space restriction within the camps.

5. Demolished and sealed buildings

The total housing stock continues to shrink as the occupation authorities have demolished many buildings on security or planning grounds. Security-related demolitions are carried out by the army as part of the collective punishment against families and communities of those accused of resistance activities. In most cases the entire house, regardless of whether it is owned or rented, is dynamited. In a few cases, one or more rooms are blown up,

while in others, the house is completely or partially sealed off. Demolished houses cannot be rebuilt. Starting with the intifada, the number of demolitions increased significantly. A total of 590 houses were demolished annually during 1988-1989 on both permit and security grounds. During 1990, some 145 houses were demolished on planning grounds and 206 for security reasons.

Planning or building permit-related demolitions have also been carried out by the army upon instructions of the Israeli planning authorities. As it has been cumbersome and time-consuming to obtain a licence, many Palestinians have gone ahead and started construction work while waiting for a permit, or built without attempting to acquire one. When inspectors have spotted a building that had no permit, they have issued instructions to the owner to apply for a permit. If the permit is refused, they ask the owner to destroy the building at his own expense. As most people refuse to tear down their own dwelling, the planning authorities have brought in the army to do the job.

6. Buildings in Jewish settlements

Since 1967, a number of Jewish settlements have been built in the occupied Palestinian territory. They comprise buildings that can be broadly classified into: permanent, mobile and military. There are about 50,000 to 70,000 housing units in the West Bank and 700 to 1,000 housing units in Gaza Strip distributed among 225 and 19 Jewish settlements, respectively. Buildings in most settlements are permanent structures, either single or multi-storey, constructed of stone and concrete or concrete and cement blocks. Some settlements consist totally or partially of mobile homes, and these are generally in sites which originally started out as military or paramilitary sites and developed later into permanent settlements. Military buildings are either barracks or permanent construction in military-designated sites around the country.

B. Occupancy density

1. Habitable rooms per household

During 1981 to 1987, the average area of a housing unit was about 129 square metres in the West Bank and about 139 square metres in Gaza Strip. The corresponding average number of rooms in each housing unit were 3.6 and 4.0 respectively. In the West Bank and Gaza Strip, about half of the households lived in three- or four-room dwellings in 1989, as indicated in table 17. In the West Bank, 31 per cent of households had two rooms as compared with 27 per cent in Gaza Strip. More families tended to share housing units in Gaza Strip than in the West Bank. This is owing mainly to the limitation of land available for development and the relatively lower living standards. The increasing needs of those families are generally met by the addition of rooms to existing buildings instead of constructing new buildings.

2. Occupancy and overcrowding

Serious overcrowding occurs when three or more persons live in one room. The stress created within a household arises not only from the number of persons living together in one room, but also from the coexistence of different generations living under the same roof, each with its own needs and

desires which may be incompatible. 35/ In 1975, about 77 per cent of all the households of the West Bank and 76 per cent of those in Gaza Strip lived in housing units with occupancy densities of two or more persons per room. The corresponding percentages of households living in units with occupancy densities of three or more persons per room were 53 per cent for the West Bank and 47 per cent for Gaza Strip, as shown in table 18.

In 1989, about 60 per cent of all the households of the West Bank and 65 per cent of all the households of Gaza Strip lived in housing units having occupancy density of two or more persons per room. The corresponding percentages for households with occupancy densities of three or more persons per room were about 30 per cent for the West Bank and 34 per cent for Gaza Strip.

Table 18 indicates that the average household size decreased from 6.4 in 1975 to 6.2 in 1989 for the West Bank and from 6.8 to 6.2 for Gaza Strip, owing to an increasing trend among the younger generation to establish their own households. The corresponding median housing densities (persons per room) had dropped from 3.2 to 2.3 for the West Bank and from 2.9 to 2.4 for Gaza Strip. 36/

C. Tenure of housing stock

Tenure of housing units in the territory varies in accordance with the type of community and, to some extent, the geographical location. In the West Bank, the percentage of owned housing units in urban communities increased from about 48 per cent in 1974 to 68 per cent in 1985. It was significantly higher in rural communities where owner occupancy increased from about 86 per cent to 91 per cent during the same period. The percentage of rentals decreased from about 44 per cent in 1974 to about 30 per cent in 1985 in urban communities, but remained at around 7 per cent in rural areas, as shown in table 19.

The relatively high ownership of housing units reflects the traditional tendency to invest in real estate in the territory, especially in the rural communities. Unlike the situation in cities and larger towns, the land market in villages is very limited as people there tend to hold on to their property both for agricultural and other uses.

There is no clear definition of ownership in the refugee camps since the land on which shelters are constructed does not belong to the camp residents and the structures are considered temporary. However, one can assume for practical purposes that all units in the camps are effectively owned by the residents as long as the camps exist, and the final status of the refugees is not determined.

The situation in Gaza Strip is not very different from that of the West Bank. Ownership of housing units has steadily increased from about 72 per cent in 1974 to 89 per cent in 1985. The percentage of renter households decreased from about 19 per cent to about 8 per cent in the period.

A small percentage of households in the West Bank and Gaza Strip live in housing units which they neither own nor rent. This results from living in the traditional extended family buildings, in houses owned by relatives who

do not expect rent or, in very few cases, as a result of squatting. Owing to the demolition of an increasing number of houses during the intifada, on the pretext of security, a growing number of affected families had moved into vacant buildings without any rental arrangements.

D. Cost of housing

An analysis of the factors which contribute to the total cost of construction is useful for determining cost-reduction possibilities for future housing activities. The final cost of construction is not only influenced by the type of materials used, but also by the construction arrangement, the size of the housing unit and proper planning and management. The total cost of a building is made up of the cost of (1) land; (2) construction materials; (3) labour; and (4) infrastructural requirements.

1. Land

Land prices and their rate of change differ in the various parts of the occupied Palestinian territory. They are influenced by a number of factors including zoning, distance from urban centres, availability of infrastructure and services and the general economic conditions prevailing at any given time.

For 1990, the average purchase price of land for selected urban locations is given in table 20. The prices shown in the table are based on information obtained from municipal officials and real estate agents in the respective locations. In rural areas, the price of land varied considerably from one location to another, depending on distance from urban centres and the location and distance from main roads. The variation in prices may be from \$100 to several thousand dollars per dunum. As a result of the increasing demand of residents who have been obliged to emigrate from the Old City of Jerusalem since 1967 to live in the neighbouring villages such as Al-Ram, Al-Azariya, Abu Dis, Beit Hanina and others, the price of land in these rural areas had increased dramatically. The average price for a dunum of land in Al-Ram, for example, increased from about JD 200 or \$560 in 1967 to about JD 20,000 or \$30,000 in 1990.

2. Construction materials

Most of the materials used in construction in the occupied Palestinian territory are imported from Israel or other foreign markets, either through Israeli agents or, in a few cases, directly by local traders. Some of the imported materials, such as tiles, marble and some plastic products, have local substitutes, while others, such as cement, wood, steel, glass and aluminum do not have any local substitute. These items are sometimes imported in a basic form and processed locally for use in construction.

As indicated earlier, restrictions imposed on industrial development have prevented the establishment of new construction material industries or the upgrading of existing ones. A publicized case is the proposed cement factory project in the Hebron area. Additional projects include steel pipe factories, electrical cable and wire factories and others. These restrictions, coupled with the excessive limitations on direct imports of construction materials by local traders have rendered the cost of these materials relatively high.

The price of construction materials, whether imported or manufactured locally, is generally subject to fluctuations. These fluctuations depend on local and international markets and the exchange rates between the three most commonly used currencies in the occupied Palestinian territory, namely the Jordanian dinar, the Israeli shekel and the United States dollar. In rural areas, materials are usually purchased from the nearest city or town and transported to the village at the owner's expense. The cost of transportation is generally a function of distance and mode of transportation. The average prices of basic building materials are set out in table 21.

3. Labour

The cost of labour in the construction sector has been influenced by a number of factors since 1967. These factors include the migration of skilled labour to neighbouring markets (in Israel, Jordan and other Arab countries), the fluctuating level of construction activity locally and in the neighbouring markets, and the prevailing political situation in the region.

Construction workers may be divided into three main categories: skilled, semi-skilled and unskilled. In most construction activities, workers from all these categories are involved in a mix which depends normally on location, type of construction activity, required work standards and financial arrangements.

The demand and supply of construction workers in the West Bank and Gaza Strip are affected by the level of construction activities in the territory and in Israel. The prevailing political situation, which influences the mobility of construction workers within the occupied territory and between it and Israel, also determines the degree of exchange in the labour market. However, it is not always readily determined whether the increase in the number of workers in a certain location is owing to increased activity in that location, to decreased activity in Israel or to restrictions that are frequently imposed on travel to work in Israel. During the intifada, for example, the percentage of West Bank construction workers employed in Israel increased from 44 per cent in 1987 to 49 per cent in 1989. The corresponding percentages for Gaza Strip decreased from 81 per cent to 74 per cent.

The average daily wage for construction workers from the West Bank and Gaza Strip had increased from \$9 in 1980 to \$20 in 1989. It should be noted that these wages are the official published rates and that informal labour, both in the territory and in Israel, is usually willing to work for lower wages. In addition, labour wages in rural areas are generally lower than those in urban areas; the participation of family labour in the construction process tends to lower the effective labour cost even further. The average daily wages in urban areas of the West Bank and Gaza Strip for the major trades in 1990 are indicated in table 22.

4. Infrastructure

The type and extent of available infrastructure vary considerably within the territory. The main elements include roads, water supply and distribution, electricity supply and distribution, and sewage collection and disposal.

In most urban towns and for most housing units, access is provided by road or footpath; piped water comes in through a distribution network. Connections with sewage networks are provided to a small, but increasing, percentage of the population, while the rest of the population relies on septic tanks for sewage disposal. Electricity is supplied to almost all housing units.

In semi-urban and rural towns and villages the extent and quality of roads and access is generally lower than in urban towns. However, an increasing number of villages has recently invested in road construction or road improvement. Some towns and villages have piped water networks while others depend on collected rainwater or buy their water from available sources and transport it by tankers. In some villages, water is still transported from local springs or directly from irrigation canals to houses, carried by hand or on animals. Sewage disposal almost entirely consists of cesspits or septic tanks. Some villages have continuous electricity supply from neighbouring cities or from the Israeli network, while others depend on local generators for a limited supply of electricity.

In the refugee camps, access is by roads or footpaths of varying quality. Most camps have either piped water supply or central point distribution systems. Some camps depend solely on primitive cesspits for sewage disposal. Recently, sewage collection networks were being installed in an increasing number of camps in the West Bank and Gaza Strip.

The cost of infrastructure also varies from one location to another. However, estimates of average costs of the different components have been summarized in table 23.

E. Income and affordability

The only data on income, expenditure and savings in the territory are those published in the official Israeli statistics. Attempts by Palestinian researchers to conduct household surveys to quantify these indicators have been sketchy. Results from those attempts should be treated with caution as people questioned are reluctant to supply accurate information on income levels and sources, for tax and other considerations.

A report by J. Edmondson in 1987 on the status of cooperative housing in the West Bank and Gaza Strip assumed the median monthly family income to be JD 176 or \$520 in the West Bank and JD 146 or \$435 in Gaza Strip. Assuming further that 30 per cent of this income is available for housing, the total value of the initial units (including land and infrastructure) to be constructed is calculated at JD 11,257 or \$33,208 and JD 9,481 or \$27,969 for the West Bank and Gaza Strip, respectively. This assumes that financing is available at 5 per cent for 20 years and the down payment is 30 per cent of total value. Based on these findings, it is suggested that small lots and modest housing units coupled with the utilization of low-cost housing solutions must be considered so that low- and moderate-income families can afford them. 37/

Income limitation for housing expenditure has been generally overcome by resorting to savings or remittances from family members working abroad. In 1987, the total value of private transfers from abroad constituted about 2.4 per cent of the gross disposable private income for the West Bank and

about 6.4 per cent for Gaza Strip. The ratio of private savings to gross disposable private income was about 16 per cent for the West Bank and 21 per cent for Gaza Strip.

The lack of sufficient funds has prompted some to resort to the construction of expandable housing which is usually enlarged when resources become available. Family members, relatives and friends have been called upon for help in the construction process, especially in the rural areas in an attempt to save money outlays.

Emphasis in future housing construction will have to be on producing new housing units which are designed to meet minimum standards of affordability and acceptability in order to satisfy the demands: of newly forming households; for upgrading and replacement of units; for relief in room overcrowding; and for replacement of units withdrawn from the housing stock.

F. Housing demand

The actual demand for housing in the occupied Palestinian territory is defined as the number of housing units required to satisfy the basic and social housing needs of the population.

In 1980, Abu Kishk and Ghurani estimated that the disparity between the number of housing units needed and those which would be available in the occupied Palestinian territory in 1990 would be around 41,792 and 165,774 for dwellings with occupancy densities of 3.03 and 1.40 persons per room, respectively. These figures were based on a projected total 1990 population of 1,530,923 and an average family size of 6.1 persons. The corresponding total demand for housing was 268,027 and 269,842 units, and the corresponding total demand for rooms was 505,255 and 1,093,516, respectively, for basic and social housing needs. 38/

The population characteristics used by Abu-Kishk and Ghurani in their calculations of the projected estimates were based on official Israeli statistics for the period 1967-1976. The assumption was that population growth and emigration from the occupied Palestinian territory would continue at the same rate as that during the period 1967 to 1976. The occupancy density of 3.03 persons per room is the official figure in the territory. In 1971, Israel's target density was 1.4 persons per room.

In 1989, Bahiri calculated the demand for housing units in the occupied Palestinian territory (excluding east Jerusalem). Based on an official total population figure of 1.4 million in 1987, demand ranged from 215,300 units to 233,300 units to meet basic and social needs, respectively. Bahiri also calculated corresponding demand for 264,600 units and 286,700 units, based on the West Bank Data Base Project's population estimate of 1.72 million for 1987. 39/

Bahiri defines basic needs as constituting 6.5 persons per housing unit, 12.5 square metres per person, 2.71 rooms per housing unit, 2.4 persons per room, 30 square metres per room and 81.25 square metres per housing unit. Social needs, however, are defined as 6 persons per housing unit, 15.0 square metres per person, 3 rooms per housing unit, 2 persons per room, 30 square metres per room, and 90 square metres per housing unit.

A Habitat study conducted by researchers at Birzeit University in 1989 estimated the projected housing requirements for 1987 to 2007 under different scenarios regarding rate of population increase and rates of inflow of Palestinian returnees. The study concluded that the number of additional housing units required for the period 1988 to 1992 ranged from 40,800 to 96,800 units, depending on the assumptions made. 40/

It is obvious that housing demand estimates are arbitrary and sensitive to the assumptions on which they rest. In addition to the uncertainty in characterizing the population, no precise data is available on the elements of demand, such as the actual number of new units constructed, the number of units that must be replaced and the actual number of new families formed either through marriage or separation of extended families sharing the same housing unit. Furthermore, actual demand for housing is also a function of income and cost. Since these factors vary for different regions and communities within the occupied territory, the variations must thus be taken into account in estimating a realistic demand for housing.

In refugee camps, occupancy densities are the highest. Densities vary between urban and rural communities both within the West Bank and Gaza Strip and between them. The same may be said about the average household size and the area requirements of a room. Within the refugee camps, the limitations on the availability of land and restrictions on new construction severely affect the satisfaction of demand within the camps.

The estimated 1990 population (according to official Israeli statistics) is 1.2 million for the West Bank and 650,000 for Gaza Strip. It is assumed that the average household size is 6.5 persons for the West Bank and 7.0 persons for Gaza Strip. To account for vacant units, the actual supply of housing units is assumed to be 3 per cent larger than the number of households. If demand is calculated on the basis of a desired household size of 6 persons, while the factor allowing for the units which are required to accommodate new families and replace units retrieved from the available stock is 5 per cent, then the estimated shortage of housing units at the end of 1990 would be about 19,850 for the West Bank while the shortfall for Gaza Strip would be about 18,100.

Chapter VI

CONCLUSIONS AND MEASURES FOR ACTION

A. Conclusions

Construction was considered as the leading sector in terms of real growth achieved over the past 25 years. Its share in domestic production had doubled from 9 per cent in 1972 to 18 per cent in 1987, equivalent to some \$300 million. This contribution slightly trailed that of the agricultural sector but was almost double that of the industrial sector. Equally important gains were seen in construction's share in domestic employment, albeit a trend that had begun to stagnate since the early 1980s. The number of persons employed in the construction sector in the occupied territory increased from around 13,000 in 1980 to about 20,000 in 1989. These figures represented around 6 per cent and 11 per cent of the total local labour force, respectively, in the same years.

This growth had been fuelled by high investments in residential buildings required to meet the growing need for housing. It was financed mostly by earnings and transfers from abroad. During the period 1980 to 1987, the contribution of the housing sector to gross domestic capital formation rose from around \$224 million to \$360 million, representing an average of around 69 per cent of total gross domestic capital formation. Since 1987, the construction sector had undergone a sharp decline in output, because of Israeli restrictions, disruption of the socio-economic life of the people in the territory and a decline in remittances and private transfers.

The housing situation has constituted one of the most serious economic and social problems confronting the Palestinian people in the West Bank and Gaza Strip since the Israeli occupation. The annexation of east Jerusalem and the continuous expropriation of land and other resources, coupled with severe restrictions on land use, has been detrimental to the proper development of the housing sector. Occupation has deprived the Palestinian people of the opportunity to establish and develop institutions capable of, and responsible for, the planning, implementation and management of housing activities throughout the occupied territory. In addition to depriving Palestinians of badly needed dwellings, restrictions on the development of existing construction industries and the establishment of new ones, especially with respect to construction materials, has increased dependence on the Israeli market and limited local employment opportunities.

While only minimal public investment was made in the housing sector during the early years of occupation, mostly aimed at relocating some families out of crowded refugee camps in Gaza Strip, severe restrictions were imposed on the transfer of funds into the territory and on the establishment and development of local banking and credit institutions to finance housing projects. As a result, the Palestinian housing sector is characterized by high occupancy densities exceeding three persons per room; more than 6 per cent of all households had densities exceeding five persons per room. Around one quarter of all households had no running water, one fifth had no electricity and over one third had no toilet facilities. In order to redress the gradually deteriorating situation over the past decade, residential

construction was intensified, accounting for around 80 to 85 per cent of all construction, almost entirely carried out privately by individuals or real estate developers.

The housing stock in the West Bank and Gaza Strip is not homogenous, but varies according to geographic location and type of community. Nevertheless, overcrowding has been a common phenomenon. Density remains high in all communities. This phenomenon has not been confined to refugee camps, but has also affected low-income families in most towns and villages. The solution has generally been to expand existing buildings, rehabilitate abandoned buildings and construct new ones. The core sections of most Palestinian towns and villages contain buildings which have been partially or completely abandoned, mainly owing to their deteriorating condition. In the refugee camps, a large number of buildings has been abandoned either because of the mass emigration that took place during the 1967 war (particularly from the camps in the Jordan valley) or as a result of the improved income levels of some camp residents. In addition, in some of the major towns a significant number of partially or completely vacant buildings belong to owners who have been either unwilling to rent them at the prevailing low rates or who wish to keep them for their own use or that of their family in the future. A recent survey of 55 towns and villages has revealed that abandoned buildings account for around 6 per cent of the available housing stock in small villages and 8 to 12 per cent in larger villages and towns.

In recent years, increases in population coupled with rapidly deteriorating economic conditions had encouraged many families in urban, rural and refugee communities to resort to the rehabilitation and upgrading of abandoned or old buildings or the expansion of existing buildings, both vertically and horizontally. Upgrading took place both inside and outside the core areas of towns and villages and involved interior and/or exterior work. The characteristics of new buildings have varied depending on location, socio-economic condition and zoning regulations. In the West Bank, especially in cities and urban areas, new residential buildings have taken the form of detached and semi-detached houses, or apartment buildings. The basic construction materials have been reinforced concrete with stone facing. New buildings have generally been connected to all available services and infrastructure such as roads, water, electricity and sewage systems. In rural towns and villages, however, construction has been mostly of cement blocks and/or reinforced concrete. Multi-storey buildings have predominated, especially in Gaza Strip, as a result of the scarcity of the land and the high population density.

Ownership of housing units has also varied with the type of community and, to a lesser extent, with geographical location. Around 80 per cent of all housing units, excluding those in refugee camps, were found to be owner-occupied. In the West Bank, owner-occupied houses have accounted for some 80 to 85 per cent of all housing units. In urban areas, the proportion of owner-households was estimated at around 70 per cent, reaching 90 per cent in rural towns and villages, reflecting the limited rural land market and the tendency of the rural population to hold onto property for economic and social considerations. In the refugee camps, the status of ownership of dwellings has not been clearly determined. Although housing units in the camps were generally considered as temporary shelter constructed on land leased by UNRWA,

it was not unreasonable to assume, for all practical purposes, that these units were owned by their residents as long as the final status of the refugees had not been determined.

Building materials have constituted the single largest input to construction, accounting for 40 to 50 per cent of the total cost and for as much as 80 per cent of the direct cost of housing construction. While some of the basic building materials were produced locally, a large proportion of basic items such as Portland cement, structural steel, aluminum, lumber and glass have been available only through import channels, mainly from Israel.

Lack of institutional finance was considered to be a major impediment to meeting the housing needs of a growing number of Palestinian people. There was no adequately staffed and experienced financial institution capable of mobilizing local savings or funds from other sources and allocating them to housing. The only institutions involved in various levels of housing development activities were the housing cooperatives and real estate enterprises. During the first half of the 1980s, activities in the cooperative housing sector had increased as a result of the policy adopted by the Jordanian-Palestinian Joint Committee (JPJC) which placed housing at the top of its aid priorities. While over 100 housing cooperatives have been formed and registered with the Jordan Cooperative Organization (JCO) in Amman, only 43 of these cooperatives have obtained housing loans through the JPJC and the Jordan housing bank. Cooperative housing activities had ceased almost entirely after 1986 when the flow of JPJC funds effectively came to a halt. Of 1,415 units started under the JPJC programme, only some 450 to 500 units had been completed and occupied; the rest remained uncompleted owing to lack of funds or building restrictions.

In recent years, real estate development activities, including the construction of multi-apartment residential buildings for sale or rent, had emerged in the larger urban centres such as Nablus, Ramallah, east Jerusalem, Bethlehem, Hebron and Gaza city. These activities were carried out by individual investors, informal partnerships or real estate development companies. However, inadequate housing finance had continued to act as a limiting factor. The activities of the recently reopened branches of the Cairo-Amman Bank had been restricted to the West Bank, excluding east Jerusalem, while those of the Bank of Palestine have been limited to Gaza Strip. Neither of the two banks had any significant activity in the area of housing or real estate finance. The few small-scale credit institutions created recently, although involved in extending limited working capital for agricultural and industrial projects, had no activity in the housing sector.

In general, in addition to the numerous constraints confronting the housing sector, housing development has also been adversely affected by a number of indigenous factors including the absence of a national housing strategy, inadequate planning and management of housing construction activities, and lack of adequate coordination among existing housing institutions and between them and potential donor agencies. Another constraint has been the absence of regulating and guiding agencies at all levels. The municipal and village councils which, despite all their limitations, represented the only elements of indigenous Palestinian government, were neither sufficiently experienced nor qualified to plan, direct, implement or manage public housing programmes. Most of the housing

cooperatives and associations were likewise poorly equipped to engage in effective housing activities. The experience and capacity of consulting and contracting engineering firms were generally inadequate for the requirements of the housing sector, owing to the limited operations of the past years. An additional constraint was the limited availability of basic building materials and other inputs, a large proportion of which were imported.

The lack of adequate and appropriate building codes, regulations, and standards represented another constraint for any large-scale housing construction undertaking. Existing codes and regulations had either been replaced by Israeli regulations reflecting other considerations or had not been updated for three or four decades and were thus in need of extensive review and modification to improve their efficiency and compatibility with the new requirements.

B. Measures for action

Based on the analysis of the situation in the territory, it is essential to satisfy the present housing needs of the Palestinian people, thus relieving problems of overcrowding and inadequate facilities as well as replacing the increasing number of deteriorating housing units. Any solution to the present and future construction and housing needs of the Palestinian people would also have to consider the possible return of a number of Palestinians from abroad and the elimination of the present refugee status.

(a) There is a growing need for a comprehensive housing strategy to define and assess housing needs, identify target groups along socio-economic lines and their priorities, assess capital requirements, identify institutions involved in housing programmes and support their efforts to build and deliver dwellings promptly to needy sections and groups of Palestinian people. Such a strategy would have to be formulated in accordance with specified procedures governing housing in various areas, both urban and rural. The newly established Housing Council is obviously expected to play a cardinal role in this context.

(b) A parallel effort is needed to develop a general physical plan at town and village levels, allowing for the expansion of development areas, allocating areas for low-cost housing, including parcelling of lots, so as to enable all target groups to acquire land for housing at affordable prices.

(c) Existing housing institutions need to be strengthened with a view to upgrading their capacity to plan, manage and implement housing projects and establish new ones in areas where shortages in housing delivery and related services have been identified; these include housing cooperatives, financial institutions, engineering and contracting firms, etc.

(d) Similarly, the capacities of existing construction materials industries need to be expanded and the quality of their material upgraded, thus providing adequate suitable construction materials at affordable prices.

(e) It is equally important to bridge existing shortages in the housing stock balance by encouraging public and cooperative housing projects in urban areas and private housing construction in rural areas.

(f) The municipalities, along with the association of engineers and architects, should take the lead in laying down a comprehensive, suitable building code, heretofore lacking. Such an initiative should be aimed at guiding all types of construction activities.

(g) Every effort should be made to protect and preserve the Palestinian architectural heritage, in particular historic sites, houses and monuments: municipalities and other relevant institutions should prepare plans to this effect. The assistance of Palestinian and other Arab institutions could be solicited along with the technical support of such international organizations as UNESCO. In this connection, reference is made to the resolution adopted by UNESCO whereby the entire city of Jerusalem would be considered as a protected area. Nevertheless, Israeli construction work in and around the city has continued unabated. The international community should encourage the Israeli authorities to abide by their obligations under international conventions and the relevant resolutions of the United Nations system regarding preservation of the physical characteristics of the occupied territory.

Notes

1/ Figures are extracted from statistical bulletins and Maps of Operations published by the United Nations Relief and Works Agency (UNRWA) for several years.

2/ Shehadeh, R., Occupier's law: Israel and the West Bank, Revised edition, Institute for Palestine Studies, Washington, D.C., 1988, p. 23.

3/ Administrative Division Regulation No. 125 for 1965, published in the Jordan Gazette No. 1891, 16 December 1965. Information on Gaza Strip was obtained from several issues of the Official Statistical Bulletin, published by the Department of Statistics and Publication, General Governor's Administration for Gaza Strip, (Egypt) and through personal contacts.

4/ See Jordan's Law of planning towns, villages and buildings, No. 79 for 1966.

5/ Centre for International Research, Palestinian Arab population: 1950 to 1984, United States Bureau of Census, Washington, D.C. 20233, 1985.

6/ The Centre for Engineering and Planning (CEP) has been commissioned by over 50 West Bank municipal and village councils since 1985 to prepare town planning schemes. The work involved elaborates on field studies covering the demographic, land, social and economic situation for each town or village.

7/ Jordan Department of Statistics, First census of population and housing, interim report No. 1; number and characteristics of structures in municipalities, Amman, 18 November 1961.

8/ Bahiri, S., Construction and housing in the West Bank and Gaza, WBDBP, The Jerusalem Post, Jerusalem, 1989, pp. 11 and 14.

9/ Ibid., pp. 8 and 14.

10/ Information on GDP, employment and GDCF is based on UNCTAD, "Selected national accounts series of the occupied Palestinian territory (West Bank and Gaza Strip), 1968-1987", (UNCTAD/RDP/SEU/6) and on Israel, CBS, Statistical Abstract of Israel, No. 41, Jerusalem, 1990 and previous issues.

11/ Examples are the villages of Imwas, Yalu and Beit Nuba. The Israelis have constructed "Canada Park" over the ruins of Imwas, and the Mevo Horon colony over Beit Nuba.

12/ Jordan, Department of Statistics, First census of population and housing, "Volume 3: housing and household characteristics", Amman, August 1964.

13/ CEP village survey.

14/ Benvenisti, M. and S. Khayat, The West Bank and Gaza Atlas, WDBBP, The Jerusalem Post, Jerusalem, 1988. The population of Al-Ram is taken from a CEP village survey in 1986.

15/ Dabbagh, M., Biladuna Falastine, second edition, May 1988.

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17/ Bahiri, S., op. cit.

18/ Joint Palestinian-Jordanian Committee for steadfastness of the Palestinian people in the occupied Palestinian territory, A report of achievements 1979-1986, Amman, October 1987.

19/ Edmondson, J., Assessment of cooperative housing in the West Bank and Gaza, The Cooperative Housing Foundation, Washington, October 1987.

20/ Cooperative housing projects in the West Bank, A status report submitted by the Centre for Engineering and Planning (CEP) to the Seminar on town planning and housing in the occupied Palestinian territory, Amman, 27-29 December 1988.

21/ Joint Palestinian-Jordanian Committee for steadfastness of the Palestinian people in the occupied Palestinian territory, op. cit., p. 68.

22/ Bahiri, S., op. cit., p. 32.

23/ The number of workers employed in Israel includes those working in the Jerusalem area, which represent about one third of all West Bank workers employed in Israel. However, owing to a lack of accurate data on the distribution between "East" and "West" Jerusalem, no attempt has been made to determine a breakdown at this stage.

24/ Abu Kishk, B. and I. Ghurani, "Housing" in A Palestinian Agenda for the West Bank and Gaza, edited by Emile Nakhleh, American Enterprise Institute, Washington, D.C., 1980.

25/ Jordan, Ministry of Planning, A Programme for Economic and Social Development in the Occupied Territories 1986-1990, Amman, November 1986.

26/ Palestine Liberation Organization, Department of Economic Affairs and Planning, Programme for Development of the Palestinian National Economy for the years 1994-2000, Executive summary, Tunis, July 1993, pp. 22 and 49.

27/ Abdulhadi, R., "Land use planning in the occupied Palestinian territories", Journal of Palestine Studies, vol. 19/4, No. 76, 1990, pp. 46-63.

28/ Benvenisti, M. and S. Khayat, op. cit., pp. 57 and 60.

29/ Coon, A., "Planning practice in the West Bank" (unpublished study), Centre for Planning, University of Strathclyde, Glasgow, November 1990.

30/ For a detailed discussion of Road Plan No. 50, see Aziz Shehadeh, et al., "Israeli proposed road plan for the West Bank: a question for the International Court of Justice", Law in the service of man, Ramallah, 1984.

31/ Benvenisti, M., West Bank Data Base Project: 1987 Report, The Jerusalem Post, Jerusalem, 1987, p. 35.

32/ Private discussion with Dr. Atef Alawneh, a member of the team which conducted the "Survey on Industrialization in the West Bank", February 1991.

33/ The original limit on transfers through Cairo-Amman Bank and across the bridges was JD 400. In 1988, the amount of transfer per person across the bridges was reduced to JD 200, or \$500.

34/ Abu Kishk and Ghurani, op. cit., p. 77.

35/ Ibid., p. 79.

36/ It should be noted that these figures are extracted from official Israeli statistics. No other data on the actual situation is available.

37/ Edmondson, *ibid.*

38/ Abu Kishk and Ghurani, op. cit., p. 87.

39/ Bahiri, S., op. cit., p. 54.

40/ Abdul-Haq, et al., Housing requirements in the future Palestine State, 1987-2007 (a study prepared for the United Nations Centre for Human Settlements (Habitat)), Birzeit University, 1989.

TABLES

Table 1. Distribution of buildings according to occupancy in municipal towns in the West Bank, 1961

Towns	Number of buildings	Buildings with:				Buildings (Empty)	
		1 household		2 or more households		Number	%
		Number	%	Number	%		
Jerusalem District							
Beit Jala	798	475	60	251	31	72	9
Beit Sahur	608	384	63	185	30	39	7
Bethlehem	2 914	1 885	65	659	23	370	12
Deir Dibwan	452	333	74	87	19	32	7
El-Bireh	1 736	1 042	60	533	31	161	9
Jericho	2 071	1 348	65	240	12	483	23
Jerusalem	4 941	2 305	47	1 782	36	854	17
Ramallah	1 684	907	54	580	34	197	12
Nablus District							
Anabta	704	449	64	120	17	135	19
Jenin	2 500	1 911	76	233	9	356	15
Nablus	3 485	1 596	46	1 423	41	466	13
Qalqilia	2 105	1 394	66	253	12	458	22
Salfit	610	409	67	97	16	104	17
Tubas	1 294	871	67	127	10	296	23
Tulkarm	3 137	2 405	77	414	13	318	10
Hebron District							
Hebron	4 295	2 224	52	1 242	29	829	19
Total	33 334	19 938	60	8 226	25	5 170	15

Source: Jordan, Department of Statistics, First census of population and housing, interim report No. 1, number and characteristics of structures in Municipalities, Amman, 1961.

Table 2. Household facilities in major West Bank cities, 1961

City	Available facility (per cent of households)				
	Kitchen	Bathtub	Interior Toilet	Electricity	Water
Jerusalem	69	11	80	49	26
Nablus	66	30	87	60	73
Hebron	41	10	61	23	18
Ramallah El-Bireh	53	23	34	43	21
Bethlehem/Jala/Sahour	51	8	33	41	6
Tulkarm	61	24	54	42	57

Source: Jordan, Department of Statistics, First census of population and housing, households and housing characteristics, final tables, Amman, 1964.

Table 3. Distribution of gross domestic product by main sectors, selected years 1972-1987

	Occupied Palestinian Territory	West Bank	p i r
Year			

	Total Million \$			Total Million \$			Total Million \$			Total Million \$		
	Agric.	Indus.	Const.	Agric.	Indus.	Const.	Agric.	Indus.	Const.	Agric.	Indus.	Const.
	(Percentages)			(Percentages)			(Percentages)			(Percentages)		
1972	36	8	9	37	8	9	33	6	10	33	6	10
1974	40	8	12	45	8	11	26	8	15	26	8	15
1976	33	8	16	34	7	14	31	10	20	31	10	20
1978	34	9	16	36	7	14	29	13	21	29	13	21
1980	33	8	16	38	7	14	19	10	21	19	10	21
1982	26	7	19	31	7	17	16	9	23	16	9	23
1984	19	8	18	20	7	16	14	10	22	14	10	22
1985	20	8	17	20	8	17	19	9	19	19	9	19
1986	30	8	16	33	8	15	20	10	22	20	10	22
1987	23	9	18	24	8	17	19	14	21	19	14	21

Source: Israel, CBS, Statistical Abstract of Israel, Jerusalem, 1976-1990 and "National accounts series of the occupied Palestinian territory (West Bank and Gaza Strip), 1968-1987" (UNCTAD/RDP/SEU/6).

Table 4. Employed persons in construction (building and public works), selected years 1970-1989

Year	Total		Working in OPT				Working in Israel <u>a/</u>			
			West Bank		Gaza Strip		From WB		From GS	
	Number	%	Number	%	Number	%	Number	%	Number	%
1970	24 085	100	8 383	35	4 497	17	8 408	35	2 797	13
1975	46 127	100	7 720	17	2 382	5	22 220	48	13 805	30
1980	48 991	100	10 090	21	3 380	7	20 341	42	15 180	30
1981	53 839	100	11 127	21	3 914	7	21 027	39	17 771	33
1982	56 000	100	10 335	18	3 919	7	23 263	42	18 483	33
1983	58 944	100	10 901	18	3 739	6	25 685	44	18 619	32
1984	59 428	100	11 752	20	3 995	7	25 551	43	18 130	30
1985	59 461	100	12 871	22	4 108	7	24 843	42	17 639	29
1986	64 296	100	14 694	23	4 157	6	25 958	40	19 487	31
1987	68 255	100	13 993	21	4 544	7	30 444	45	19 274	27
1988	71 422	100	12 733	18	4 494	6	32 448	45	21 747	31
1989	76 235	100	12 694	17	7 459	10	34 989	46	21 093	27

Source: Israel, CBS, Statistical Abstract of Israel, Jerusalem, various issues.

a/ The number of workers from the West Bank employed in Israel include those who work in the Jerusalem area. In 1989 about 11,500 workers (one third of those working in Israel) were employed in the Jerusalem area. However, since no information is available on the distribution between east and west Jerusalem, no breakdown has been attempted at this time.

Table 5. Share of building and construction works in gross domestic capital formation (GDCF), selected years 1972-1987

Year	OPT		West Bank		Gaza Strip	
	GDCF million (\$)	Construction %	GDCF million (\$)	Construction %	GDCF million (\$)	Construction %
1972	60.5	43	42.1	48	18.3	32
1974	167.5	49	119.9	50	47.5	46
1976	177.5	71	109.7	77	67.8	62
1978	226.1	63	155.2	61	70.8	66
1980	349.1	64	250.4	59	98.7	78
1982	352.8	70	241.5	66	111.2	78
1984	309.5	68	211.9	45	97.5	73
1985	286.6	76	202.5	76	84.0	74
1986	521.1	60	397.6	56	123.5	73
1987	529.3	68	371.4	70	157.9	64

Source: Israel, CBS, Statistical Abstract of Israel, (Jerusalem, 1976-1990) and "Selected national accounts series of the occupied Palestinian territory (West Bank and Gaza Strip) 1968-1987" (UNCTAD/RDP/SEU/6).

Table 6-A. Population distribution in the West Bank and Gaza Strip, 1961

Zone	Total	Urban		Semi-urban and rural		Unsettled Nomads		Refugee camps	
		Number	%	Number	%	Number	%	Number	%
Hebron district	119 432	37 868	31.7	67 279	56.3	1 664	1.4	12 621	10.6
Jerusalem district	344 270	149 073	43.3	110 262	32.0	4 726	1.4	80 209	23.3
Nablus district	341 748	75 407	22.0	218 310	63.9	8 557	2.5	39 474	11.6
West Bank	805 450	262 348	32.6	395 851	49.1	14 947	1.9	132 304	16.4
Gaza Strip	370 229	142 208	38.4	63 036	17.0	-	-	164 985	44.6

Sources:

1. Jordan, Department of Statistics, First census of population and housing, households and housing characteristics, final tables, Amman, 1964.

2. Department of Statistics and Publications, Governorate General of the Gaza Strip, Official Statistics Bulletin, 1964.

Table 6-B. Population distribution in the West Bank and Gaza Strip, 1967

Zone	Total	Urban		Semi-urban and rural		Unsettled nomads		Refugee camps	
		Number	%	Number	%	Number	%	Number	%
Hebron district	118 358	38 309	32.4	70 610	59.7	3 559	3.0	5 880	5.0
Jerusalem district	243 274	118 880	48.9	101 207	41.6	1 073	0.4	22 114	9.1
Nablus district	302 905	69 326	22.9	200 558	66.2	3 210	1.1	29 811	9.8
West Bank	664 537	226 515	34.1	372 375	56.0	7 842	1.2	57 805	8.7
Gaza Strip.	356 261	117 315	32.9	63 542	17.8	2 883	0.8	172 521	48.4

Source: Israel, CBS, Census of Population, 1967, the West Bank of Jordan, Gaza Strip, Northern Sinai and Golan Heights, Jerusalem, Publication No. 1, 1967.

Table 6-C. Population distribution in the West Bank and Gaza Strip, 1990

Zone	Total	Urban		Semi-urban		Rural		Refugee camps	
		Number	%	Number	%	Number	%	Number	%
Hebron district	257 520	82 422	32.0	93 545	36.3	71 396	27.7	10 157	3.9
Jerusalem district	645 709	162 108	25.1	100 834	15.6	341 800	52.9	40 967	6.3
Nablus district	701 581	157 262	22.4	162 726	23.2	324 736	46.3	56 857	8.1
West Bank	1 604 810	401 792	25.0	357 105	22.3	737 932	46.0	107 981	6.7
Gaza Strip	894 984	372 572	41.6	69 211	7.7	181 263	20.3	271 938	30.4

Source: Centre for Engineering and Planning, Ramallah, field estimates, 1991.

Note: Estimates are based on the average projections of 1961 and 1967 populations and an annual net growth rate of 3 per cent for the West Bank and 3.5 per cent for Gaza Strip.

Table 7. Contribution of the private sector to construction in the West Bank and Gaza Strip, 1980-1987
(in thousand square metres)

Year	OPT		West Bank		Gaza Strip	
	Total Construction	Private %	Total Construction	Private %	Total Construction	Private %
1980	1 078.0	99.3	753.0	99.5	325.0	98.8
1981	1 176.6	99.3	761.1	99.6	356.5	98.6
1982	1 050.9	99.3	732.1	99.5	318.8	98.9
1983	964.7	99.4	636.4	100.0	328.3	98.2
1984	988.0	99.5	687.0	99.7	301.0	98.9
1985	1 046.7	99.1	777.9	99.5	268.8	97.8
1986	1 235.3	98.5	948.6	98.7	286.7	96.8
1987	1 260.6	97.8	975.1	98.6	285.5	94.9

Source: Israel, CBS, Statistical Abstract of Israel, Jerusalem, 1982-1990.

Table 8. Average construction area for residential and other purposes
(public and private sectors), selected years 1968-1987
(in thousand square metres)

Year	OPT		West Bank		Gaza Strip	
	Total Construction	Residential %	Total Construction	Residential %	Total Construction	Residential %
1968	85.3	71	72.9	78	12.4	27
1970	130.0	82	115.4	83	14.6	70
1972	370.0	81	262.3	80	107.7	84
1974	604.8	85	470.9	82	133.9	94
1976	873.3	83	613.6	82	259.7	84
1978	1 016.2	82	720.9	82	295.3	82
1980	1 078.0	83	753.0	83	325.0	84
1982	1 051.9	86	732.1	86	319.8	85
1984	988.0	84	687.0	82	301.0	87
1985	1 046.7	84	777.9	84	268.8	85
1986	1 235.3	82	948.6	81	286.7	87
1987	1 260.6	78	975.1	76	285.5	86

Source: Israel, CBS, Statistical Abstract of Israel, Jerusalem, 1970-1990.

Table 9. Buildings, dwellings and built-up areas in towns and villages of the West Bank and Gaza Strip completed annually, 1982-1987 (area in thousand square metres)

Year	Item	West Bank			Gaza Strip		
		Buildings Number	Dwellings Number	Area	Buildings Number	Dwellings Number	Area
1982	Towns	1 295	2 100	390.6	1 488	1 703	279.3
	Villages	2 041	2 118	254.6	388	413	71.0
	Total	3 336	4 218	645.2	1 876	2 116	350.3
	% In Towns	39	50	61	79	80	80
1983	Towns	1 656	1 999	363.6	1 386	1 558	264.6
	Villages	1 968	2 066	285.6	219	243	40.0
	Total	3 624	4 065	649.2	1 605	1 801	304.6
	% In Towns	46	49	56	86	87	87
1984	Towns	1 427	1 914	379.5	1 111	1 258	213.5
	Villages	2 138	2 309	273.8	332	339	55.7
	Total	3 565	4 223	653.3	1 443	1 597	269.2
	% In Towns	40	45	58	77	79	79
1985	Towns	1 330	1 878	363.3	821	948	176.1
	Villages	2 331	2 636	347.1	233	275	42.3
	Total	3 661	4 514	710.4	1 054	1 223	218.4
	% In Towns	36	42	51	78	78	81
1986	Towns	1 297	2 021	403.8	827	1 056	216.0
	Villages	2 820	3 208	427.7	277	348	63.4
	Total	4 117	5 229	831.5	1 104	1 404	279.4
	% In Towns	32	39	49	75	75	77
1987	Towns	1 873	2 910	549.4	777	944	189.3
	Villages	2 632	2 830	363.6	225	303	53.2
	Total	4 505	5 740	913.0	1 002	1 247	242.5
	% In Towns	42	51	60	78	76	78

Source: Israel, CBS, Statistical Abstract of Israel, Jerusalem, 1984-1990.

Table 10. Habitable rooms per housing unit completed annually
in the West Bank and Gaza Strip, 1981-1987
(per cent)

Year	Number of rooms											
	West Bank						Gaza Strip					
	1	2	3	4	5+	Total	1	2	3	4	5+	Total
1981	1.5	16.7	34.1	33.4	14.3	17 370	4.7	16.0	21.2	31.2	26.8	7 688
1982	1.4	15.1	31.7	34.7	17.1	16 530	4.7	10.4	21.3	34.7	28.9	7 108
1983	1.3	15.7	32.8	32.8	17.4	14 640	2.3	12.4	18.7	35.9	30.7	7 226
1984	1.1	16.5	31.4	32.2	18.8	15 655	2.1	8.6	18.8	36.2	34.2	6 686
1985	1.3	12.7	31.0	33.3	21.8	18 288	2.0	8.4	17.9	31.4	40.3	5 774
1986	1.3	14.7	30.1	39.7	14.2	20 754	1.6	6.4	17.9	30.6	43.5	5 857
1987	1.8	19.3	31.3	36.3	11.3	19 699	2.2	7.1	15.6	27.2	47.9	5 758

Source: Israel, CBS, Statistical Abstract of Israel, Jerusalem, 1982-1990.

Table 11. Household facilities in the West Bank and Gaza Strip, 1974, 1981, 1985
(per cent of all households)

Facility	West Bank									Gaza Strip		
	Total			Towns			Villages			Towns		
	1974	1981	1985	1974	1981	1985	1974	1981	1985	1974	1981	1985
Kitchen	64.1	74.5	80.9	84.0	89.0	93.4	54.3	66.8	75.8	85.6	97.4	95.8
Bathroom	23.7	50.7	52.8	45.8	73.8	77.7	16.5	40.4	44.4	26.5	69.7	78.6
Running Water	23.5	44.9	61.6	60.9	79.0	91.0	9.8	29.3	49.5	25.7	63.1	83.2
Electricity	45.8	50.6	63.1	91.5	95.8	98.2	27.6	26.9	46.4	56.8	89.2	83.7

Source: Israel, CBS, Statistical Abstract of Israel, Jerusalem, 1989.

Table 12. Registration of housing cooperatives in the West Bank, 1985

District	Number registered in Jordan	Thereof: number registered in West Bank	Total Membership
Jerusalem	60	21	1 464
Hebron	18	5	829
Nablus	23	12	988
Total	101	38	3 281

Source: Centre for Engineering and Planning, Ramallah: Evaluation of cooperative housing projects in the OPT, (Report submitted to the Symposium on Planning and Housing in OPT), Amman, 28-29 December 1988.

Table 13. Cooperative housing loans in the West Bank, 1980-1986

District	Number of Cooperatives	Cooperative Membership	Loan value JD (Million)
Jerusalem	7	262	1.961
Ramallah	21	437	2.751
Bethlehem	3	100	0.873
Nablus	4	285	1.985
Jenin	4	178	1.004
Tulkarm	1	35	0.245
Hebron	3	118	0.724
Total	43	1 415	9.543

Sources:

1. Centre for Engineering and Planning, Ramallah: Evaluation of Cooperative Housing Projects in the OPT (Report submitted to the Symposium on Planning and Housing in OPT) Amman, 28-29 December 1988.

2. The Jordanian-Palestinian Joint Committee for supporting the steadfastness of the Palestinian People in their homeland, A report on accomplishments 1979-1986, the Secretariat General of the JPJC, Amman, October 1987.

Table 14. Number of cooperative housing units completed and inhabited in the West Bank, 1978-1985

District	Number of cooperatives	Number of constructed units	Number of occupied units	Per cent
Jerusalem	31	799	280	35
Hebron	3	118	52	44
Nablus	9	498	72	14
Total	43	1 415	404	29

Source: Centre for Engineering and Planning, Ramallah: Evaluation of Cooperative Housing Projects in the OPT (Report submitted to the Symposium on Planning and Housing in OPT) Amman, 28-29 December 1988.

Table 15. Labour force working in construction in the West Bank and Gaza Strip by locality of work, selected years 1985-1989

(per cent)

Item	OPT				West Bank				Gaza Strip			
	1985	1987	1988	1989	1985	1987	1988	1989	1985	1987	1988	1989
Locality of residence	19.9	19.7	17.8	20.4	21.5	20.3	18.8	17.7	17.3	18.7	16.2	24.9
Other locality	8.6	7.5	6.4	6.1	12.6	11.3	9.5	9.0	1.5	0.4	1.1	1.2
Jerusalem	17.7	16.2	15.4	15.1	27.9	24.9	24.2	24.1	-	-	-	-
Israel	53.8	56.5	60.4	58.4	38.0	43.5	47.6	49.2	81.2	80.9	82.7	73.9

Source: Israel, CBS, Statistical Abstract of Israel, Jerusalem (various issues).

Table 16. Average daily wages of construction workers in the West Bank and Gaza Strip and Israel, 1980-1989

(US dollars)

Year	West Bank		Gaza Strip	
	Local	Israel	Local	Israel
1980	8.4	8.4	9.0	9.3
1981	10.7	11.0	9.9	10.1
1982	11.1	11.1	10.7	11.1
1983	11.7	11.7	11.2	11.4
1984	9.0	8.9	8.4	8.5
1985	9.2	9.2	8.3	8.5
1986	12.8	13.1	13.3	13.5
1987	15.8	16.3	18.2	18.5
1988	20.6	21.4	21.8	22.1
1989	19.6	20.8	21.1	22.2

Source: Calculated from data in new Israeli shekels, converted to United States dollars according to annual average exchange rates in Israel, CBS, Statistical Abstract of Israel, Jerusalem (various issues).

Table 17. Habitable rooms per household in the West Bank and Gaza Strip, selected years 1975-1989

(per cent)

Year	Number of rooms									
	West Bank					Gaza Strip				
	1	2	3	4	5+	1	2	3	4	5+
1975	24.9	40.5	22.2	8.9	3.5	17.1	38.3	22.6	14.0	8.0
1980	16.7	36.7	25.7	14.1	6.8	16.4	36.6	23.4	15.0	8.6
1985	13.3	33.3	29.0	17.3	7.1	21.5	29.2	22.6	16.9	9.8
1986	12.0	31.7	28.6	19.0	8.7	21.5	28.9	23.6	16.3	9.7
1987	11.0	29.3	29.4	20.0	10.3	17.6	28.0	26.4	17.3	10.7
1988	10.6	30.3	30.1	19.6	9.4	16.4	28.5	26.8	19.4	8.8
1989	10.1	30.8	30.9	19.2	9.0	16.3	27.3	32.4	17.4	6.6

Source: Israel, CBS, Statistical Abstract of Israel, Jerusalem (various issues).

Table 18. Household size and occupancy density in the West Bank and Gaza Strip, selected years 1975-1989

Item	West Bank				Gaza Strip			
	1975	1980	1985	1989	1975	1980	1985	1989
Average household size (persons)	6.4	6.9	6.5	6.2	6.8	6.7	6.3	6.2
Median housing density (persons per dwelling)	3.2	2.9	2.5	2.3	2.9	2.8	2.8	2.4
Occupancy density	Percentage							
1 person or less	12.3	13.0	16.8	19.2	11.3	11.1	14.1	16.0
1.1 - 1.9	10.7	14.2	17.9	21.2	12.5	14.6	16.5	18.6
2.0 - 2.9	24.4	25.6	28.9	29.7	28.7	30.9	29.3	31.9
3.0 - 3.9	20.4	20.3	18.1	15.8	21.9	21.6	19.7	18.6
4.0 - 4.9	14.3	12.0	9.1	7.6	14.1	11.8	10.1	8.5
5.0 - 5.9	8.0	7.3	4.6	3.4	6.5	5.2	4.9	3.2
6 persons or more	10.0	7.6	4.6	3.1	4.9	4.8	5.5	3.2

Source: Israel, CBS, Statistical Abstract of Israel, Jerusalem (various issues).

Table 19. Tenure of housing stock (excluding refugee camp residents) in the West Bank and Gaza Strip, 1974, 1981, 1985 (per cent)

Item	West Bank						Gaza Strip		
	Towns			Villages			Towns		
	1974	1981	1985	1974	1981	1985	1974	1981	1985
Owned	48.5	58.2	67.8	85.9	91.5	91.0	71.6	80.8	89.1
Not Owned (but no rent paid)	7.9	3.2	2.3	6.8	3.1	2.5	9.6	2.7	1.7
Rented	43.6	38.1	29.8	7.3	4.6	6.2	18.9	14.0	7.6

Source: Israel, CBS, Statistical Abstract of Israel, Jerusalem (various issues).

Note: Percentages may not add up to 100 because of rounding.

Table 20. Average land prices in selected towns of the West Bank and Gaza Strip, 1990

Location	Zone	Price (JD/dunum)
Tulkarm	Commercial	70 000
	Residential	25 000
Nablus	Commercial	200 000
	Residential	40 000
Ramallah/El-Bireh	Commercial	80 000
	Residential	30 000
Jerusalem	Commercial	..
	Residential	..
Bethlehem	Commercial	70 000
	Residential	25 000
Hebron	Commercial	250 000
	Residential	20 000
Gaza	Commercial	120 000
	Residential	80 000

Source: Centre for Engineering and Planning, Ramallah (interviews with municipal officials and real estate agents).

Note: Average rate of exchange for 1990, JD 1 = \$1.5069

Table 21. Average prices of basic building materials, 1990

Item	Unit	Unit price (\$)
Reinforced concrete	m ²	90 - 120
Structural steel	Ton	600
Stone	m ²	20 - 30
Cement blocks (ribs)	Each	0.6
Cement blocks (20 cm)	Each	0.6
Cement blocks (10 and 7 cm)	Each	0.3
Tiling	m ²	3.0 - 4.0
Plastering	m ²	3.0 - 3.5
Painting	m ²	3.0 - 4.0
Woodwork	m ²	70 - 85
Aluminum works	m ²	90 - 140

Source: Centre for Engineering and Planning, Ramallah (files and interviews with local contractors and suppliers).

Table 22. Average current daily wage, 1990
(US dollars)

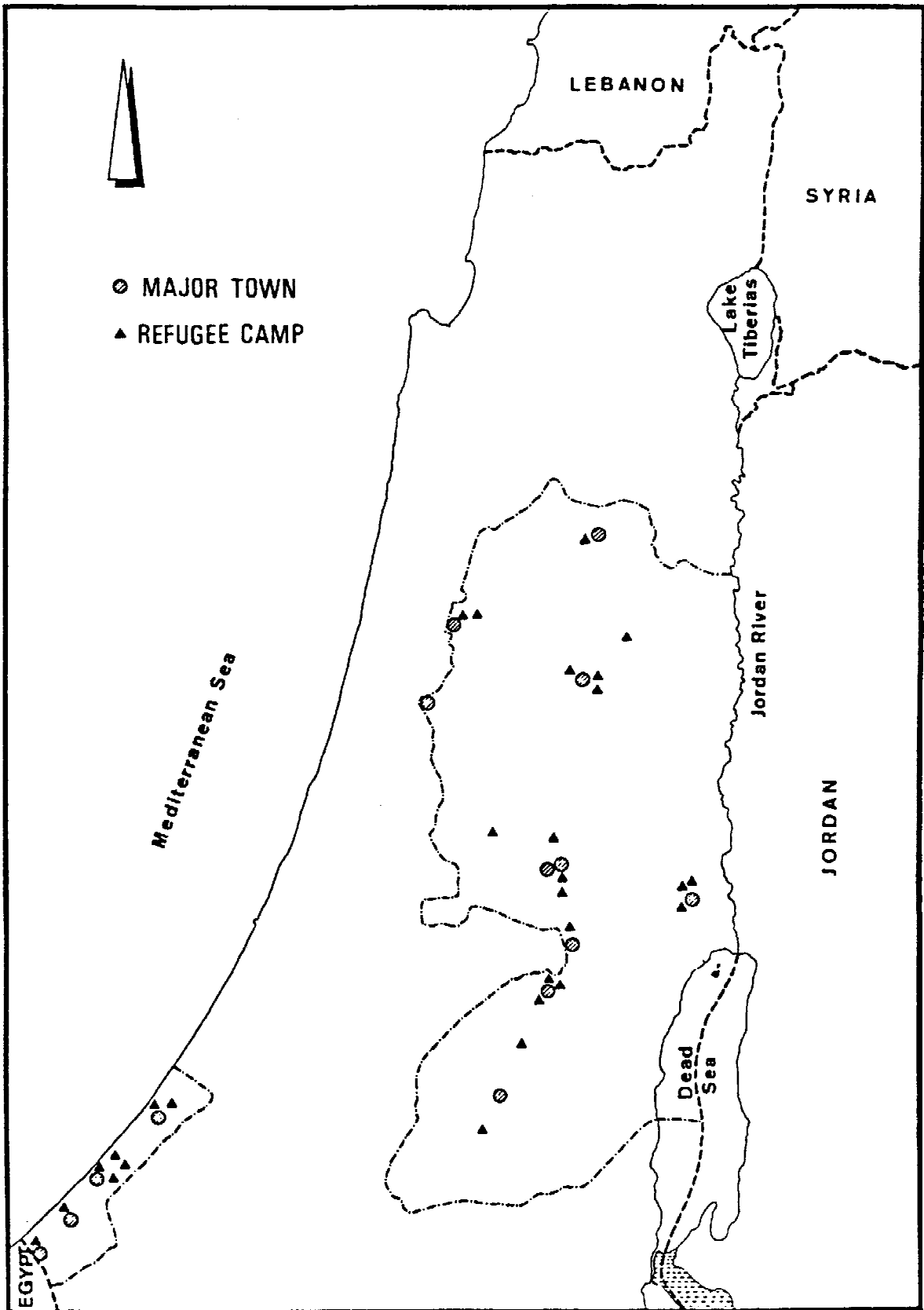
Category	West Bank					Gaza Strip				
	Builder	Carpenter	Tile layer painter	Elect. fitter	Plumb. fitter	Builder	Carpenter	Tile layer painter	Elect. fitter	Plumb. fitter
Skilled	22	22	24	25	25	20	20	22	22	22
Semi-skilled	15	15	15	15	15	13	13	13	13	13
Unskilled	12	12	12	12	12	8	8	8	8	8

Source: Centre for Engineering and Planning, Ramallah (files and interviews with local contractors).

Table 23. Average costs of housing infrastructure, 1990

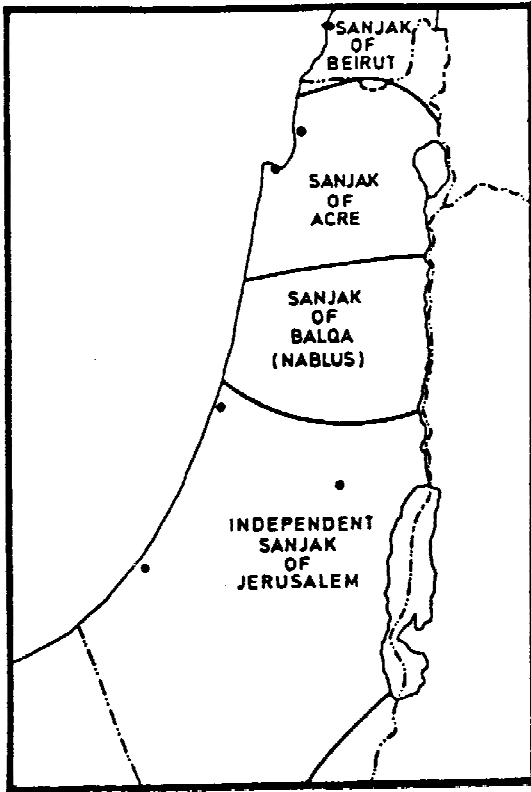
Item	Estimated cost (\$)
Road (m ²)	12
Water connection	350
Electricity connection	280
Sewage connection	1 700
Cesspits	650

Source: Centre for Engineering and Planning, Ramallah
(files and interviews with municipal engineers).

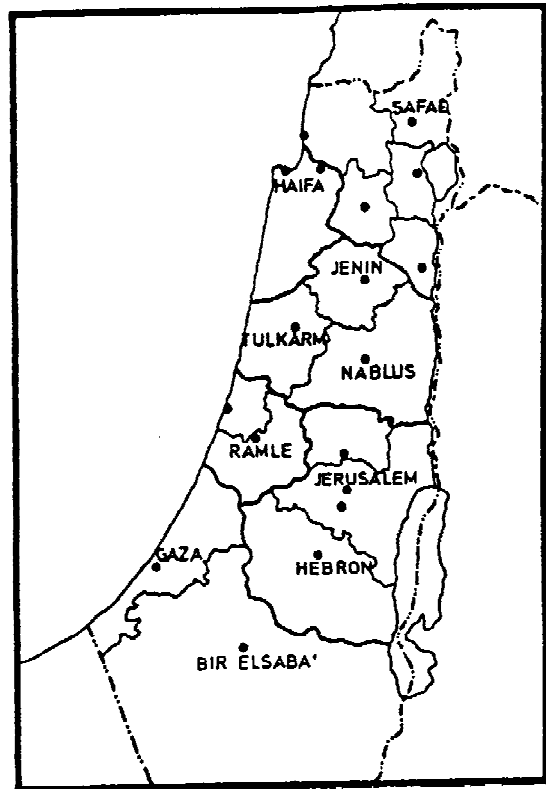


Map 1. Location Map

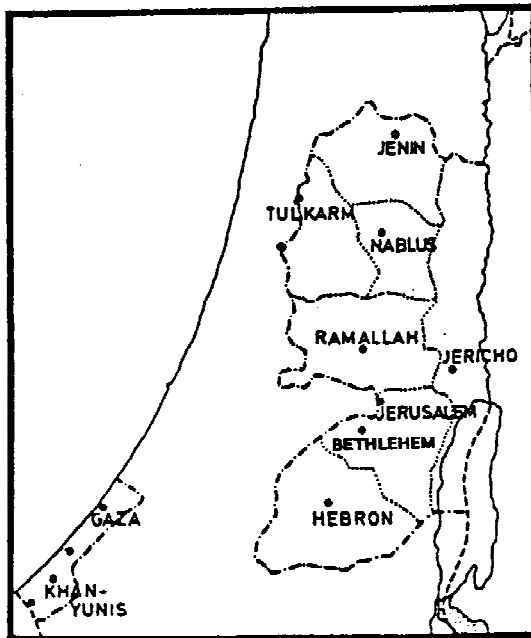
Source: CEP files



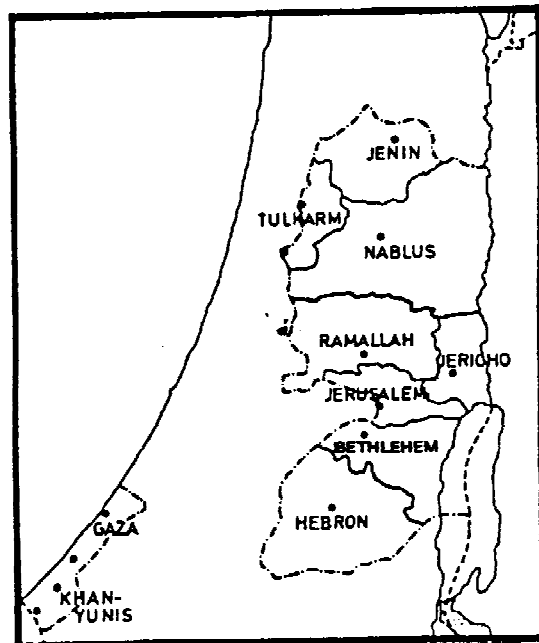
OTTOMAN ADMINISTRATIVE DIVISION



MANDATE ADMINISTRATIVE DIVISION



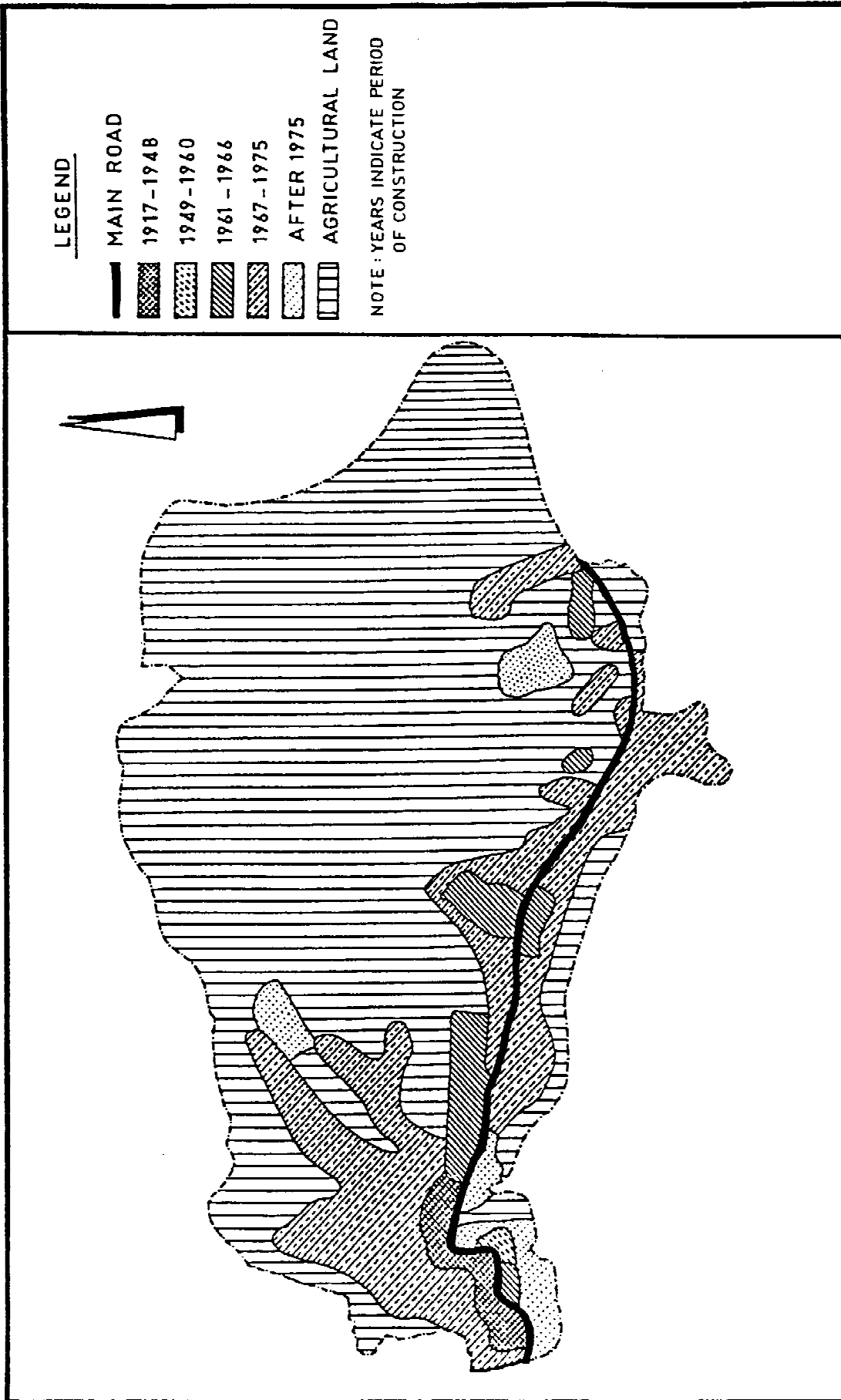
ADMINISTRATIVE DIVISION UNDER OCCUPATION



ADMINISTRATIVE DIVISION 1948-1967

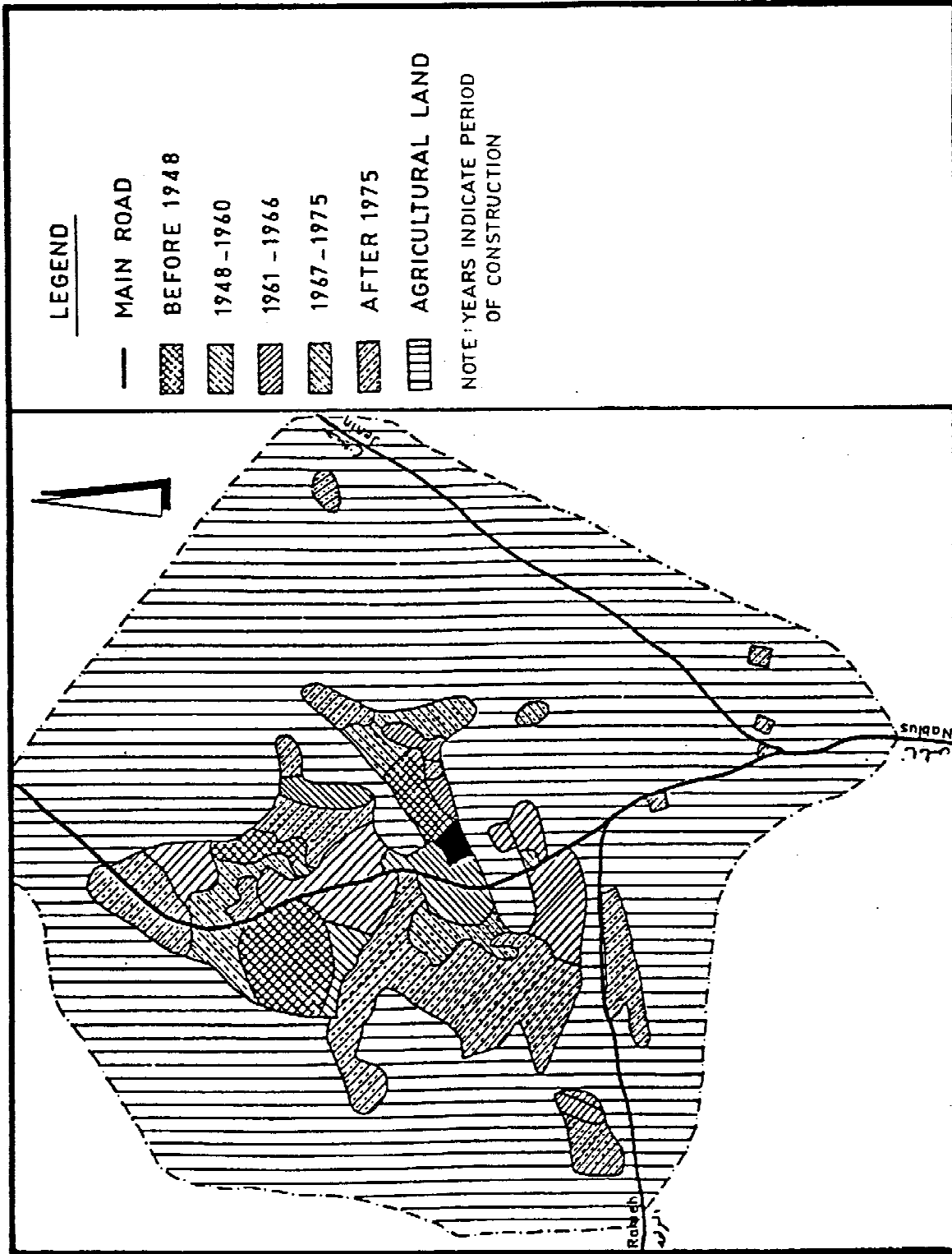
Map 2. Administrative division of the West Bank

Source: CEP files



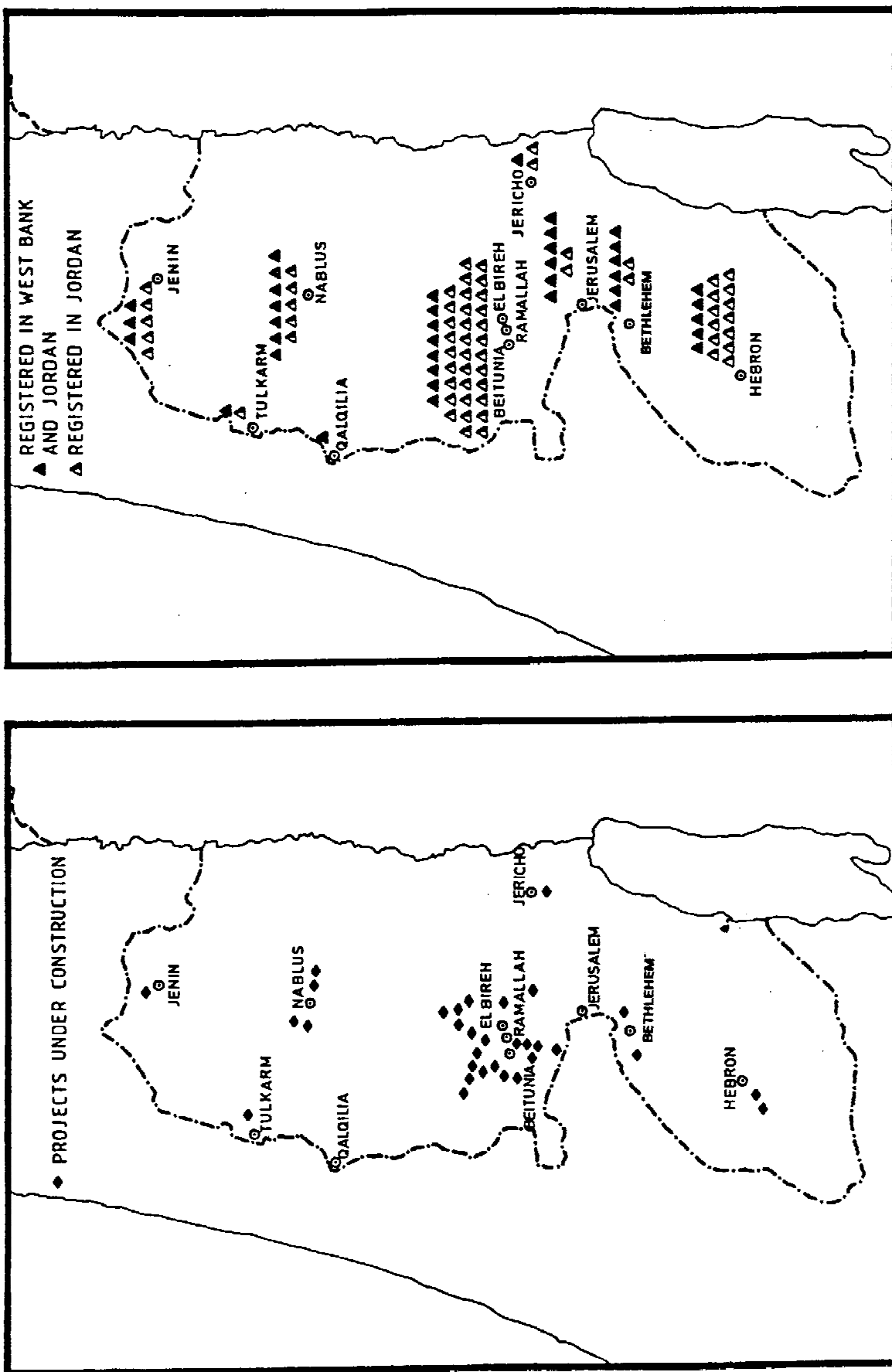
Map 3-A. Ribbon pattern of development (Al-Azariya, West Bank)

Source: CEP files



Map 3-B. Radial pattern of development (Ajja, West Bank)

Source: CEP files



Map 4. Registration and project implementation of cooperative housing in the West Bank, 1968

Source: CEF files

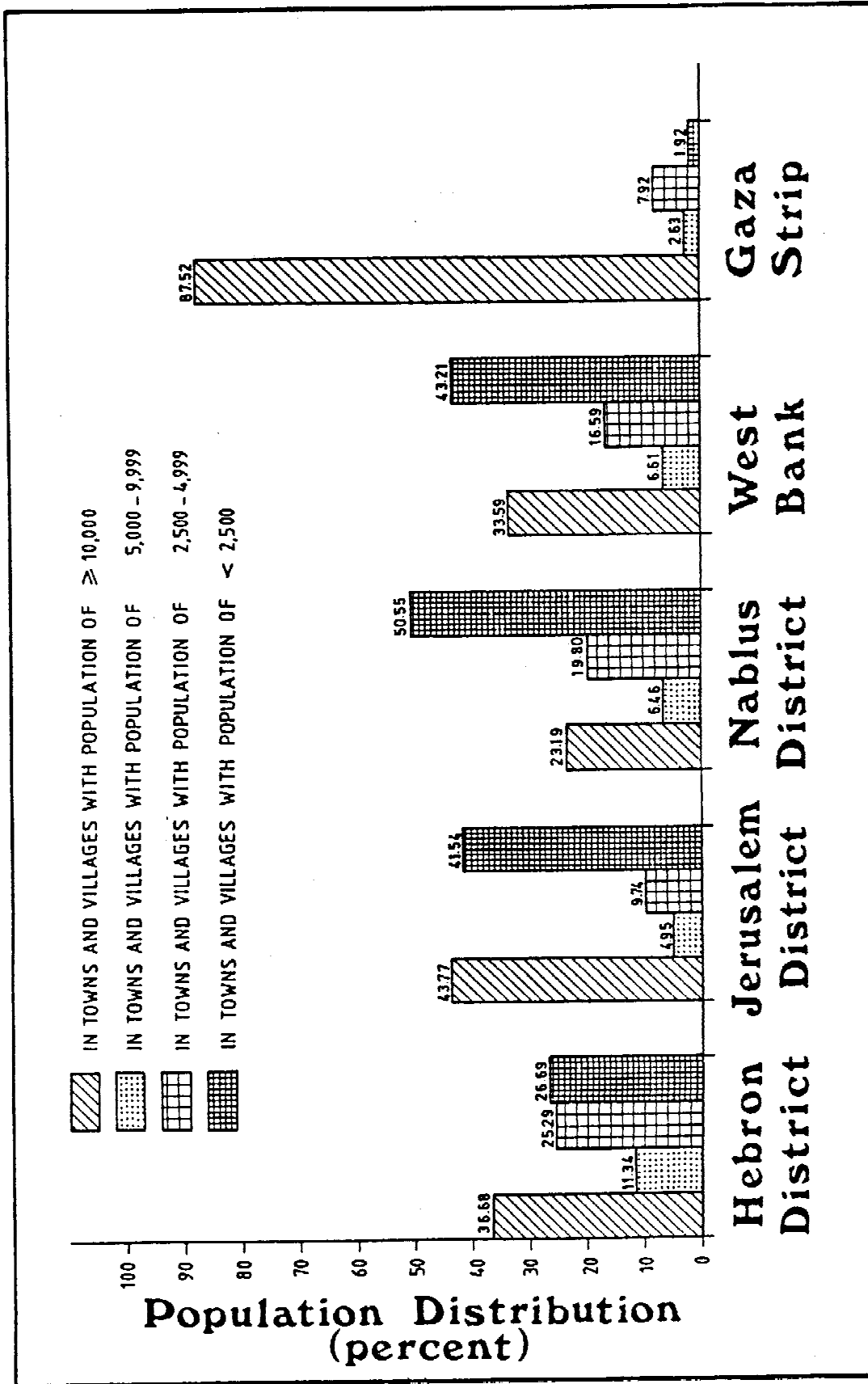


Chart 1-A. Population distribution in the West Bank and Gaza Strip, 1961

Source: CEP files

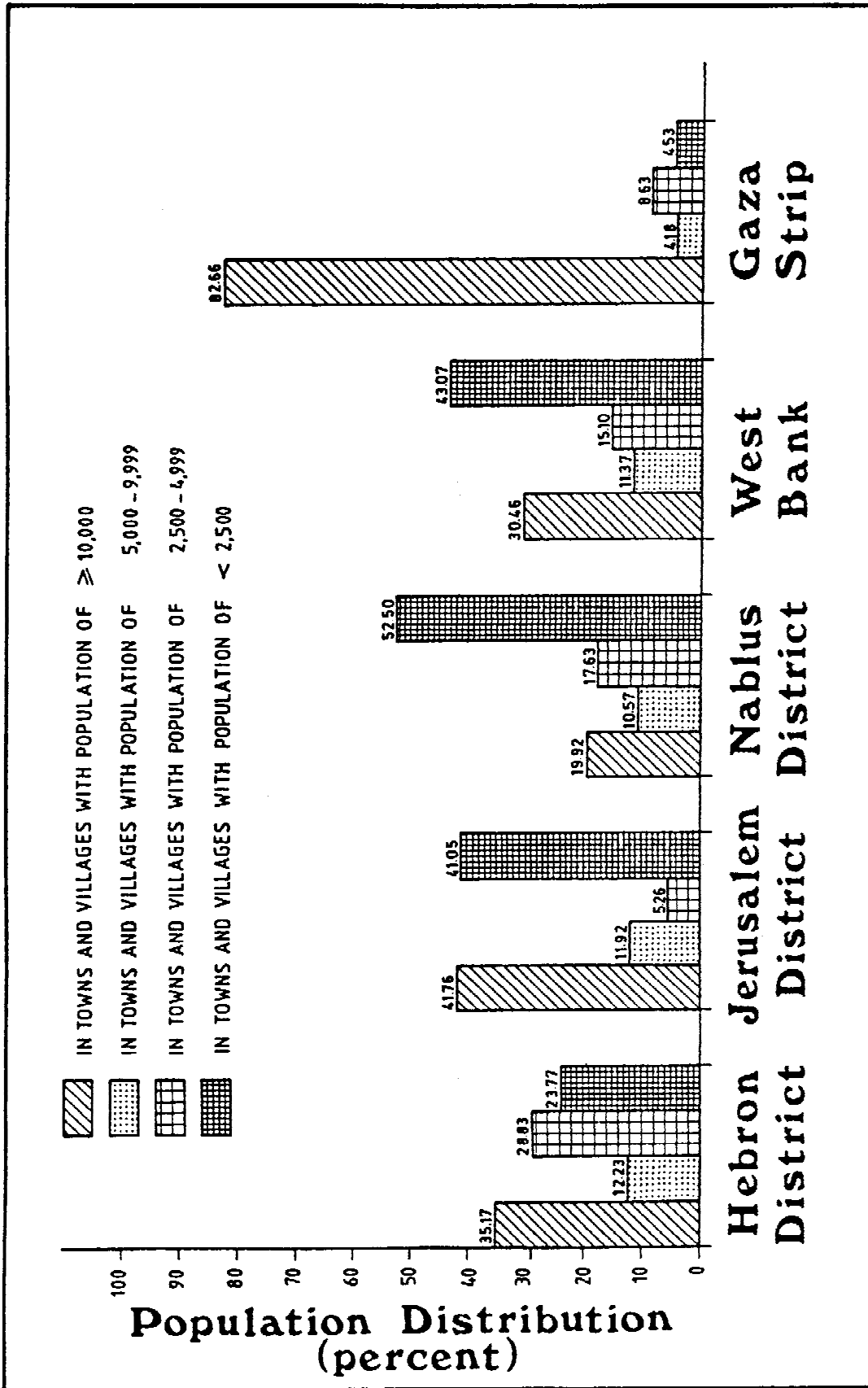


Chart 1-B. Population distribution in the West Bank and Gaza Strip, 1967

Source: CEP files

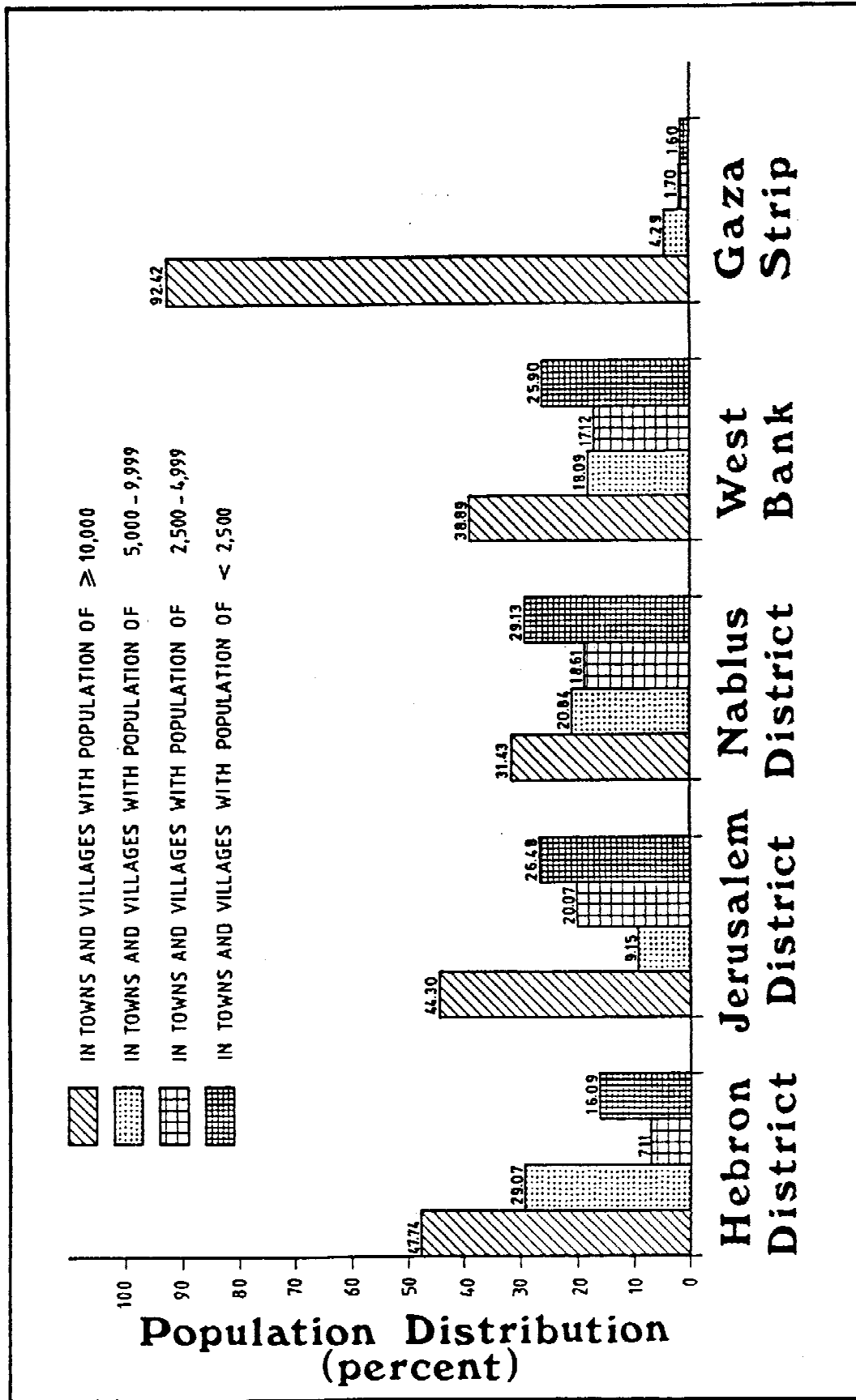


Chart 1-C. Population distribution in the West Bank and Gaza Strip, 1990

Source: CEP files

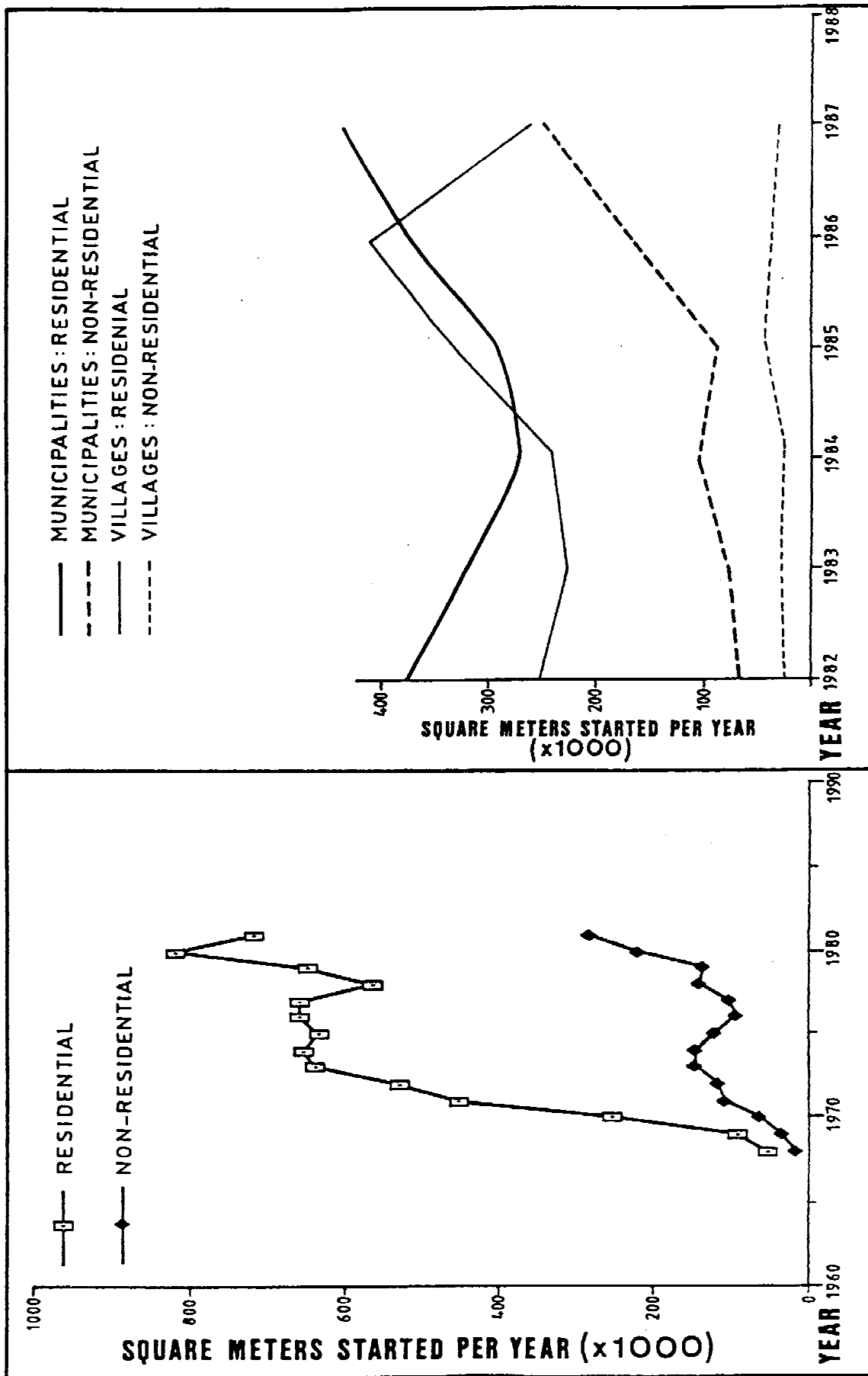


Chart 2. Rate of construction in the West Bank

Source: Anthony Coon, unpublished report, 1991, Town Planning in the West Bank Under Military Occupation.