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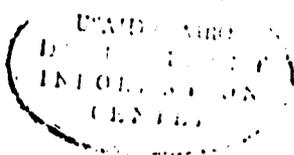
National Center for Social
and Criminological Research

Ministry of Housing and Reconstruction
with
Agency for International Development

PHASE I

**RELOCATION AND UPGRADING
COMMUNITY PROGRAMMES FOR URBAN SETTLEMENTS**

JAN 23 1980



Cairo, May 1978

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PHASE ONE

MARKET ANALYSIS

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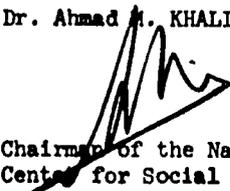
The investigation was carried to completion under contract with the National Center for Social and Criminological Research.

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And above all, the contractor wishes to thank the residents of the study area and workers of Nasr Automobile Compagny for their interest and cooperation.

Dr. Ahmad M. KHALIFA



Chairman of the National
Center for Social and
Criminological Research

May 1978

History

In the scope of the cooperation between the ministry of housing and reconstruction (MOHR) and the United States Agency for International development (AID) to build new dwellings and provide community upgrading in low income areas in both Helwan and Ain Shams a comprehensive program was adopted and a series of studies were needed.

The proposed program aims at addressing and affecting the linkage between social economic and physical conditions in low income communities.

Accordingly MOHR/AID request the cooperation of the National Center for Social and Criminological Research (N.C.S.C.R) to conduct a comprehensive survey on the existing conditions prevailing in these low income communities.

National Center for Social and Criminological Research agrees to give full support to the research project and submits a detailed proposal of the study in December 1977.

The Contract between N.C.S.C.R. and AID/MOHR was signed the first week of March 1978 and the research began in the same date.

The first phase of the Research was accomplished and delivered by the midst of May 1978.

RESEARCH DESIGN

- I. Purpose of the study
- II. Beneficiaries of the program
- III. Scope of the study
- IV. Sample selection and procedure
- V. Methodology of the field study
- VI. Field work

Research Design

I. Purpose of the Study

The study was conducted in two phases. Phase one was a market analysis survey while the second phase was an intensive survey of the housing conditions prevailing in certain low income communities.

The objectives of the market analysis were broadly the following:

1. to determine the socio-economic profile of the families:
age, sex, education level, employment status, location
of work, means of transportation to work, income, budget
of the families etc.
2. to determine the housing conditions of families: living
conditions, number of rooms, facilities, crowding rate
(person/room) existing amenities.
 - building materials (roofs, floors, walls) type of tenure.
 - Attitudes regarding the existing housing conditions.
 - Types of improvement or addition desired priorities etc.
 - The ability of the families to pay for the various housing
options as well as their willingness to relocate.
3. The convenience of the services available to families in
their place of residence.

II. Beneficiaries of the Program

The beneficiaries of the proposed program of MOHR/AID were the following:

1. Industry workers working in Helwan (potential beneficiaries of housing in New Helwan Community).
2. Householders living in the area chosen by MOHR/AID for community upgrading project.

III. Scope of the Study

AID monitor had chosen Nasr Automobile Company which is one of the emerging factories situated in Helwan as well as one of the upgrading area included in the project: Hadaiq Helwan to be the scope of the Market Analysis.

IV. Sample Selection and Procedure

Since the the market Analysis survey aims to assess the demand for affordability and acceptability of the proposed housing alternatives in the new community and the demand for improvement and credit in the upgrading community, two samples were chosen.

1. Industry workers from Nasr Automobile Company (NASCO).
2. Householders living in Hadaiq Helwan.

The first sample was a random stratified one. From a master list of NASCO workers (1113) 400 of them were chosen according to the following criteria.

- a. age ranged between 25 - 45 years. This condition was set with the assumption that this category will be mainly constituted by married young / middle age workers which, may be, will have more incentive to relocate and to purchase new-housing.
- b. earning ranged between 330 - 552 L.E./year plus incentive and over time due to extra hours work.
- c. workers chosen should not benefited of the housing services offered by NASCO to its workers.

The second sample was selected from Hadaiq Helwan: an uncontrolled settlement situated at 13 miles south of Cairo which includes the following agglomerations: "Ezbet Kamel Sedki El Bahareya", "Manchiet Hadaiq Helwan", "Madinet El Hoda", "Ezbet Kamel Sedki El Quableya", which is the largest one, and "Hadaiq Helwan" itself which is comparatively a rich residential area with villas, surrounded by gardens, and high buildings, one small bridge separate this area from the others.

Since the area developed informally we were unable to find any map and we simply divide the whole area in sections according to the number of the field workers.

V. Methodology of the Field Study

The Market analysis survey was using the same precoded schedule for the two samples but a specific set of questions were asked only to the Householders in Hadaiq Helwan while some other questions were reserved to NASCO workers.

The questions of the schedule were grouped under the following headings.

1. Informations about the heads of the households (for the two samples)
2. Socio-Economic profile of the families (for the two samples).
3. Housing conditions of families (for the two samples).
4. Attitudes of householders regarding their housing conditions (for the two samples).
5. Acceptability of householders to the proposed housing alternatives in the new community, their preferences and their willingness to relocate (workers only).
6. Improvements or additions desired by householders in term of housing and their willingness to pay instalments for additions and improvements (owners only in Hadaiq Helwan).
7. Services available to families in the residential areas of both workers and householders in upgrading area.

VI. Field Work

A family schedule draft was developed by the sociological team for the pilot survey at the end of February.

Field investigators (16) were selected and trained intensively. They were provided with instructions and definitions and an explanation of the purpose of the enquiry. After many discussions of the family schedule, they did a few trial interviews, to test the schedule.

A total number of 80 householders were interviewed (40 in NASCO and 40 in Hadaiq Helwan).

Certain modifications were made in the wording of the schedule and several variables were added, the schedule was then revised and re-printed.

Data collection began from the midst of March and last three weeks. A total number of 700 schedules were administered 400 in NASCO and 300 in Hadaiq Helwan.

The fieldwork was carried out by sixteen interviewers in NASCO company ten of them only were available for the field work in Hadaiq

* A copy of the schedule interview may be found in Appendix A.

* Some case studies (12) have been undertaken in workers place of residence with the couple to illustrate their case P. 65 - 99.

Helwan. All of them were graduated in Social studies. The householders was the respondent. The Average interview time was half an hour. Each interview was checked when returned and if necessary the interviewer went back to the field to correct omissions and inconsistencies.

The punching and the processing of the data were carried out by the statistical department of N.C.S.C.R. and last approximately three weeks.

The data was tabulated at three levels:

1. Basic household² level data for both samples.
2. Cross tabulation between three main household characteristics:
 - a. Family income
 - b. Crowding rate, person/room
 - c. Size of family
 - and desire of purchasing new houses (workers)
 - demand for improvement in housing conditions (owners in Hadaiq Helwan)
3. Cross tabulation between personal characteristics of householders and

² A household was defined as a group of people living together under the same roof; they shared the same meals as well as housekeeping expenses.

- desire of purchasing new houses (workers),
 - demand for improvement in housing conditions. (owners
in Hadaiq Helwan.
4. Cross tabulation between family income and family expenditure for both samples.

RESULTS OF THE STUDY

- I. Description of the samples
- II. Socio-Economic profile of the families
- III. Economic conditions of families
- IV. Housing conditions
- V. Relocation versus upgrading

I. Description of the Samples

RESULTS OF THE STUDY

I. Description of the Samples

Since the two samples were chosen to represent different populations - one workers in Nasr Automobile Company and the other householders in upgrading area (H.H.). The figures derived from them could not be strictly comparable although both of them work in Helwan factories as skilled or unskilled blue collars.

The two samples of householders compare as follows:

A. Age:

22.19% (89) of workers were below thirty, while only 7% (21) of householders in H.H. were in this same age category, 57.55 (229) versus 34% (102) were between thirty and forty, and 20.46% (82) versus 59% (177) were over forty.

The average age of the two samples were respectively 34.33 years and 42.43 years with a standard deviation of 6.54 and 9.47 respectively

(table a)

* Although the two samples were mainly constituted by workers. We shall refer to those living in Hadaiq Helwan as householders in H.H. to differentiate them from NASCO workers.

■ Average = mean

B. Marital Status:

The data indicated that the percentage of married householders in general reached 90.30% (632) 1.52% (11) of them had two wives. Only 6.56% (46) were single while 2.56% (18) were divorced or widower.

(table b)

C. Education Status:

The data indicated that 14.27% (100) of householders in general were illiterate 2.74% (w) versus 29.67% (H.H.).

Nevertheless illiteracy spread in Hadaiq Helwan where 60.34% (181) of householders had not even a primary certificate while 54.86% (219) of workers had at least a secondary certificate if not more.

(table c)

D. Occupation Structure:

Due to the proximity of the upgrading area to Helwan factories, it was noted that 77.32% (541) of householders in general were engaged in industrial work.

NASCO workers were mainly skilled blue collars (83.54%) while householders in Hadaiq Helwan in spite of working in the surrounded factories present a certain variety in terms of occupation: 18.33% (55) of

them were employee 3.67% (11) were in the army or police, 3.33% (10) were tradesman, 2.33% (7) were self-employed, and only 2.63% (8) were engaged in agricultural work.

(table d)

E. Years Spent in the Present Occupation:

Only 6.56% (46) of householders in general has spend less than five years in their present job. The average number of years spent in the present job reached 12.95 years for workers and 15.06 years for householders in H.H.; with a standard deviation of 4.90 and 6.91 respectively.

(table e)

F. Distance Between Home and Place of Work:

Householders in Hadaiq Helwan were more fortunate in this term; 68% of them were living at less than 10 km. far from their work. The average distance between home and place of work was high between workers it reached 27.17 km. with a S.D of 12.8. Some of them had to travel more than forty km. twice a day.

(table f)

G. Place of Residence:

Only 14.46% (58) of Nasco workers were living in Helwan, the others

were living in Cairo or in Guizeh governorate (80.01%).

(table g)

H. Means of Communication:

While Nasco workers depended mainly upon public transportation (61.85%) and company bus (18.95%) to go to their work, householders in Hadaiq Helwan were able to go to their work on foot (24%) the others rely mainly on public transportation. It was noticed that 15.96% of Nasco workers had to take more than two means of transportations to go to their work every day.

(table h)

II. Socio-Economic Profile of the Families

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1.. Types of Families

Sociologists generally distinguish between the nuclear family household made of husband, wife and children or made of a lone partner (widowed or divorced) provided that he/she is accompanied by children; and the extended family household in which a group of nuclear families and related individuals from more than one generation acts together as an economic unit; and the joint family household in which two or more married brother and / or sisters, and / or relatives reside at the same dwelling.

The extended pattern is found most often in agricultural areas where such groups are functioning as economic units. The nuclear pattern is associated with the urban industrial way of life in which family members cannot be employed together and in which, because of rapid social change, cultural differences between the generation and the resulting conflict between young and old, life together becomes difficult.

The joint pattern can be found in agricultural areas with the condition that nuclear families included in this pattern are very close relatives or at most cousins. Nevertheless the former pattern could be seen in urban areas in Egypt associated with shortage of suitable living

accommodations and low income status when two or three unrelated families rent together one single dwelling of 2 or 3 rooms. Every family has her own life and act as an independant economic unit.

The two samples chosen were living in different districts of the capital. Although they were housed mainly in poor areas or in uncontrolled settlement they were classified as nuclear families: 91.01% (638) of householders fall in this category only 4.28% (30) were classified as "modified extended" representing an adaptation of the rural family system to the conditions of urban areas, and no more than 3.86% (27) were classified as joint families: 21 of worker's families versus 6 of householders, families in H.H. (table 1). Analysis of data revealed that 17 families out of 27 were formed of two nuclear families beside the original family interviewed and that the majority of these families (23) were relatives (table 2 - 3).

2. Number of Persons versus number of Children Per Household

In spite of the fact that the majority of households were nuclear, the average size of the family is 5.21 individuals. 4.88 individuals in worker's families versus 5.87 in householders in Hadaiq Helwan, with a S.D of 2.43 and 3.58 respectively.

This is a relatively large figure especially when we note that 57.34% (401) of the families have less than six individuals each and that 37.10%

(260) of families have between six and nine individuals each, and nine individuals each, and 5.56% (39) have more than 10 individuals each (table 4).

20.28% (142) of all the families studied have no children; the relatively high percentage of childless families is due to the fact that 6.56% (46) of the householders were still single at the time of the study most of them (43) were workers.

The average number of children per household is 2.64 children: 1.92 children in workers families versus 3.35 in householders families in Hadaiq Helwan, with a standard deviation of 1.74 and 2.13 respectively. The data indicated that 15% (60) of workers versus 41.01% (120) of householders in H.H. have between four and six children and 2.05% (9) of workers versus 7.67% (23) of householders in H.H. Have more than seven children (table 5).

There is a significant difference between the number of children in the two samples. T Test = 13.42 significant beyond 0.005.

This marked difference between the average number of individuals (5.21) and the average number of children per household is due mainly to the fact that relatives are living with the nuclear families: a lone father/mother of one of the couple, or an unmarried brother/sister.

3. Wives

Due to the fact that 8.13% (57) of the householders were single or divorced or widower in the time of the study the number of wives was only 651 distributed among workers (358) and householders in H.H. (293).

a. Age

The data indicated that 3.07% (11) of workers wives versus 2.39% (7) of householders wives in H.H. were below twenty years while 5.86% (21) versus 30.71 (90) were over forty. 91.06% (326) versus 67% (196) were between twenty and forty. The average age of wives is 31.97 years: (table 6).

b. Education

Illiteracy spreads between wives in general. It was found that 45.16% (294) of them were illiterate. Whereas 16.44% (107) of them could read and write and these were mostly workers wives (74). Those who hold primary or preparatory certificate represent 15.05% (98): 74 of worker's wives versus 24 of householder's wives, and those who hold intermediate certificate represent 15.83% (103): 76 of worker's wives versus 27 of householder's wives. Only 1.54: (10) hold a university degree, 9 of them were workers' wives (table 7).

c. Occupation

Wives in the two samples are still out of the labor force; 85.87% (557) of them were unemployed at the time of the study; those who hold intermediate or higher certificate were working as employees in the public sector 10.75% (70) they represent 75% of the working wives (table 8).

4. Children

The number of children covered by the study reached 1778: 53.94% of them are male versus 46.06% females.

a. Age

32% of them were less than five years and 61.59% were between five and twenty only 6.41% were above twenty. The average age of workers and householders children was 8.44 years: 6.81 and 10.07 respectively (table 9 - 10).

b. Education

The data indicated that 41.62% (740) of children were under the age of schooling (under six). It was found that 5.57% (99) of children who were above the school age were illiterate whereas 24.18% (430) only could read and write 28.63% (569) were in schools and only 1.41% (25) were in the universities. (table 11).

* dependent youth

c. Occupation

Since the average age of children was low (8.44 years) we expect that the participation of children in household expenditure will be very limited. The data showed that more than $\frac{1}{3}$ of all children (38%) were below the age of schooling and that less of half of children (43%) were at school.

From the remainders 12.31% (219) were unemployed at the time of the study: 85 workers children versus 133 householders in Hadaiq Helwan, 24% (27) of working children were doing their military service: 5 workers children versus 22 householders children, 30.97% (35) were skilled blue collar: 6 versus 29, 11.50% (11) were unskilled blue collars: 4 versus 29, 13.27% (15) were artisans 5 versus 10, 9.73% (11) were self employed: 1 versus 10, 7.87% (9) were employees: 1 versus 9; only 2.65% (3) were engaged in agriculture work: 1 workers child versus 2 householders children in H.H. (table 12).

III. Economic Conditions of Families

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The study tried to overcome the difficulties that encounter researchers in term of gathering accurate informations about income, ownership, expenditures.

Several questions were included in the schedule to determine the Economic standard of families.

- Questions related to income of family members and per capita income.
- Questions related to the ownership in general and consumer durable in particular.
- Questions related to the distribution of family income on monthly expenditures.

1. Income of families:

Income is one of the main criteria that unable researchers to determine the economic conditions of families; householders were mainly skilled or unskilled labourers, they have regular salaries and their income from work was relatively easy to determine.

It was found that 22.11% (155) of householders have a monthly income of less than 30 L.E. and that 13.26% (93) of them have a monthly income of more than 60 L.E.

The average monthly income of householders is 41.88 L.E.: 42.81 L.E./month for workers versus 41.63 L.E./month for householders in Hadaiq Helwan. S.D = 12.28 and 15.92 respectively. (table 13).

Only 14.43% of wives were working at the time of the study: 94 out of 651 have an income from regular job; 59.38% (55) of those had a monthly income varying from twenty to forty L.E./monthly (table 14).

Only 6.35% of children were working and had a regular income from their job; the average monthly income of children didn't exceed 15.77 L.E./month. (table 15).

As we can notice the majority of families had one principal wage earner: the householders. Wives shared expenses in 63 of workers families and 29 of householders families in Hadaiq Helwan.

As to children, they are mainly students due to the fact that the families are relatively young: only 92 of householders, children (1007) in Hadaiq Helwan were working at the time of the study.

However householders reported that they have many opportunities to take on secondary jobs during the shifts, these jobs are not permanent of course but they could find easily supplementary work twice a week which doubles sometimes their income.

Almost 70% of families have a total income ranging between 20 and 60 L.E./month while 27.24% of the families have more than 60 L.E./month

6% of this last category could reach easily 100 L.E./month. The average total income of families is 49.70 L.E./month: 50.49 L.E./month in workers families and 48.90 L.E./month in householders families in H.H. with a standard deviation of 21.28 and 26.12 respectively (table 16).

Income levels can be better evaluated in terms of per capita income. It was found that 11.41% (80) of households had a per capita income of less than 5 L.E./month and that 51.5% (360) of households had a per capita income of less than 10 L.E./month.

The average per capita income of families is 11.26 L.E./month: 12.91 L.E. in workers families versus 9.61 L.E./month in householders families in H.H. with a S.D of 7.51 respectively (table 17).

2. Ownership:

The data indicated that almost 300 of the householders owned their houses. (Hadaiq Helwan).

Householders claimed that they had no holdings such as land. In spite of the fact that this data could not be very reliable we have to take it, as it is, since we were unable to examine thoroughly this question.

Nevertheless ownership of consumer durable goods was widespread among the two samples. The majority of families 87.42% had a radio,

70.75% (205) of the worker is families versus 51.66% (155) of the families in H.H. had a television set, 67% (268) versus 41.66% (125) of families had a range butagaz; 38.50% (154) versus 19% had a washing machine and 32.50% (130) versus 15.33% (46) had a refrigerator.

A substantial minority owned ventilators, waterheaters and bicycles (table 18).

3. Distribution of Monthly Expenditures:

The study tried to determine the monthly expenditure of both families in term of food, transportation, clothes, children' pocket money, electricity, rent, entertainment, medicine, etc.

The distribution of the budget reflects not only the economic conditions of families but their way of life too.

a. Monthly expenditure on food

The data indicated that the average monthly expenditure on food per household is 26.75 L.E. for all families; 26.88 L.E./month in workers families versus 26.82 L.E./month for families in H.H. If we notice that the average total income of families is 49.70 L.E./month we can say that families spend on average more than ^{the} half of their income on food alone (table 19).

If we add to food, expenditures on house requisites like tea - coffee - oil - soap etc. which average 5.73 L.E./month we shall realize that families spend on house requisites a little bit less than half of their income and that food and house requisites together devour almost the $\frac{2}{3}$ of their income (table 20).

b. Monthly Expenditure on Transportation:

The data indicated that the average expenditure on transportation is much higher in workers families (256 L.E./month) than in householders families (1.42 L.E./month) which is due to the fact that: they are mainly housed in Cairo at an average distance of 27.17 km from their work and they have to take sometimes more than one mean of transportation twice every day to go to their work and return back; while householders in Madaiq Helwan could go to work on foot because of the nearness of their houses to their work (table 21).

c. Monthly Expenditure on Clothes:

The data indicated that the average expenditure on clothes is 5.25 L.E./month which represents almost 10% of the average income of families (table 22).

d. Monthly Expenditure on School and Children:

The data indicated that the average expenditure on school is only 1.81 L.E./month: 1.53 L.E./month in workers families versus 2.08 L.E./month in householders families. We have to notice that governmental schools in Egypt are free and parents have to pay only a minimum charge for books and medical services. The difference between the two samples is due to the fact that the number of children per family is higher in householders families than in workers families.

If we add to school the average expenditure of families on children's pocket money we shall find that families expenditures on school and children average 4.75 L.E./month (table 23 - 24).

e. Monthly expenditure on electricity:

The data indicated that the average expenditure on electricity is 1.40 L.E./month: 1.59 L.E./month in workers families versus 1.38 L.E./month in householders families (table 25).

f. Monthly expenditures paid for rent:

The data indicated that the average expenditure paid for rent is 6.33 L.E./month: 6.23 L.E./month in workers families versus 6.95 L.E./month in householders families; with a S.D of 2.27 and 2.15 respectively. 27.43% (110) of workers tenants paid less than 5 L.E./month for rent versus 3.67% (11) of householders tenants, while 30.42% (121) versus 6% (18) paid

from 5 to 7 L.E./month and 29.18% (117) versus 9.33% (28) paid more than 7 L.E./month. (table 26) Rent represents in average 8% of total family income.

The difference between the two groups is due to the fact that householders in Hadaiq Helwan are mainly owners.

g. Monthly expenditure on entertainment and medicine:

Expenditure on entertainment ranged very low in the two groups 1.27 L.E./month versus 0.27 L.E./month. 63.34% (253) of workers families versus 81.67 of householders families dont include such item in their monthly expenditure; it was also founded that 24.69% (99) versus 26% (117) dont save any money for medicine, however the average families expenditure on medicine reached 2.98 L.E./month. (table 27 - 28).

h. Monthly expenditure on cigarettes:

Householders in the two samples spend an average of 3.68 L.E./month on cigarettes and others which represents about 7% of their income in spite the fact that 47.38% (189) versus 41% (312) of householders dont include such item in their monthly expenditure (table 29).

If we order the budget items of families according to their importance we shall find that food and house requisites come first followed

by clothes, expenditure on school and children, transportation, cigarettes, rent, medicine, electricity and entertainment.

These results reflect the following conclusions:

House requisites and food represent the main items in the budget families.

The cross tabulations between total family income and expenditure assigned for the different items of the family budget reveal increases as income rises.

By computing product moment correlation (Person) it has been found the following for:

Food	$r = 0.69$ which is significant beyond 0.001
House requisites	$r = 0.32$ which is significant beyond 0.001
Clothes	$r = 0.40$ which is significant beyond 0.001
School	$r = 0.31$ which is significant beyond 0.001
Children pocket money	$r = 0.33$ which is significant beyond 0.001
Electricity	$r = 0.34$ which is significant beyond 0.001
Rent	$r = 0.21$ which is significant beyond 0.01
Entertainment	$r = 0.26$ which is significant beyond 0.01
Medicine	$r = 0.28$ which is significant beyond 0.01

(table 30¹ -30⁹)

The mean expenditure on transportation remains stable

$r = 0.12$ not significant (table 31).

- The mean expenditure on cigarettes remains stable

$r = 0.12$ not significant (table 32).

IV. Housing Conditions

IV. Housing Conditions

The housing conditions of the two samples were expected to be different as workers were living in the different districts of the capital and householders in Hadaiq Helwan were living in an uncontrolled settlement; this spontaneous settlement was more than ten years ago formed by rural migrants who found work in contiguous area or by city dwellers working in Helwan and trying to settled near by: their dwellings have been built by their spontaneous effort, although they are somewhat primitive and lack urban services they shelter their residents. Due to the choice of the study area; Hadaiq Helwan includes new modern urban buildings of 3 - 4 or even 5 floors and private villas surrounded by private gardens along side the informal settlements.

The study of the housing conditions of families will deal with the following topics:

- building materials
- type of tenure and number of rooms
- utilities
- Attitudes of householders toward their actual housing condition

1. Building materials

The data indicated that 30,10% (211) ^{all} of families were living in one floor building. While the general pattern of buildings in upgrading

area is the one or two floors building (86%). 14% of the remainder householders were living in more than three floors buildings (the wealthier area in the upgrading).

As to workers they live in the big city in the capital. 88.28% (353) of them were living in more than two floors buildings while 22.6% (80) of those were living in more than five floors buildings (table 33).

The upgrading area shows a variety in the building materials used in house construction, which was expected, since owners spontaneously chosen the convenient available material in the area. Consequently 17% (51) of their buildings are in mudbrick while 72.33% (249) are matching redbrick with stone or concrete; only 10.67% (32) of their buildings are in concrete (mainly in the wealthier area of Hadaiq Helwan).

Buildings in which workers lived in Cairo are mainly in redbrick and concrete (76.81%) (table 34).

a. Roof system

The general pattern of the materials used in roofs is concrete (74.62%). Nevertheless 23.42% (146) of families match joint board with reed or asbestos, only 1.86% (13) of householders used Palm branches reed per tin (table 35).

b. Floor system

The data indicated that only 9.27% (65) of the houses are paved with mud; 16.38% (119) are paved with cement, 67.76% (474) are paved with tiles and only 0.28% (2) are framed. The remainders combine tile and cement or tile and framed (table 36).

2. Type of tenure

The data indicated that 57.92% (406) of families rent their dwellings, they are mainly constituted by workers living in Cairo (348) while 81% (243) of families in upgrading area owned their dwelling either completely or as joint property or hirk^{*} (table 37).

The average monthly rent payed by tenants is 6.33 L.E. Rents in Hadaiq Helwan are substantially higher than in Cairo and 47.36% of tenants in Hadaiq Helwan versus 35.25% of tenants living in Cairo pay a monthly rent of more than seven L.E. (table 38).

The relationship between the number of rooms and the rent of the dwelling showed that the more numerous the rooms are the more higher the rent is:

* a form of land tenure

Rent Rooms	1 -	3 -	5 -	7 -	+ 9	N/A	Total
1	11.39	39.24	15.19	2.53	1.27	30.38	79
2	6.19	14.29	26.67	7.14	3.81	41.90	210
3	1.16	7.34	19.31	18.53	9.27	44.40	259
4	2.56	6.84	17.95	19.66	19.66	33.33	117
+ 5	-	-	2.86	14.29	14.20	80	35
Total	28	88	140	89	61	294	700

$$\chi^2 = 0.47 \text{ significant at } 0.001$$

However 68.72% of families consider that they can afford to pay this rent (table 38) while the remainders consider that 5 L.E./month will be a suitable rent (table 39).

Number of rooms

The average number of rooms per household is almost similar in the two samples: 2.65 and 2.98 respectively.

The data indicated that 41.37% (289) of families have less than three rooms while 36.95% (259) have three rooms and that 21.68% (152) have more than four rooms (table 40).

However the data showed that there is a significant relations between the size of the family and the number of rooms per household:

the more numerous the family the more numerous the rooms as showed in the following table:

$$(\chi^2 = 0.16 \text{ significant at } 0.001)$$

Room	One room	2	3	4	+ 5	Total
Persons						
1	100.0%					4
2	19.18	34.25	36.99	8.22	1.37	73
3	13.92	26.58	36.71	17.72	5.06	79
4	14.84	29.69	36.72	15.63	3.12	128
5	8.47	33.90	35.59	19.49	2.54	118
6	10.75	18.28	49.46	18.28	3.23	93
7	5.81	37.21	25.58	24.42	6.98	86
8	6.25	27.08	52.18	6.25	8.33	48
9	-	24.24	39.39	15.15	21.21	33
10	7.89	42.11	21.05	21.05	7.89	38
Total	79	210	259	117	35	700

But when we take into consideration that 41.37% (290) of all the dwellings have between one and two rooms only, it becomes evident that these rooms fulfill many functions as a place for sleeping, receiving visitors, spending indoor leisure time.

Crowding rate Person / room

Most research attention has been paid to the adequacy of internal space - or its inadequacy, which is crowding. A number of signs suggest that crowding is the key housing factor affecting low-income families.

The study tried to determine the crowding rate in both groups. The data indicated that the average number of persons per room is relatively high in workers houses as well as in householders houses 2.33 person / room and 2.23 person / room respectively ^{*} which is far below the adequate standard; while 63.10% (332) of families have two or more persons per room, 44.79% (314) of families have one person per room and only 7.85% (55) have less than one person per room (table 41).

The average number of rooms needed by families, in the two samples, to feel comfortable is 3.35 rooms.

It was noticed that householders in Hadaiq Helwan need more rooms because of the relatively big size of their families: 48.33% (145) of them versus 25.94% (104) of workers need more than four rooms to feel comfortable (table 42).

* S.D = 1.34 and 1.32 respectively.

3. Utilities

Utilities form an important part of the dwelling both socially and from the point of view of health. Most of the urban dwellings in Cairo have water connection and electricity as well.

In spite of the fact that Hadaiq Helwan is characterized by the lack of most of the basic urban services - infrastructural such as water supply, sewage and garbage disposal system, paved roads, health center electricity. Residents construct their own housing and adapt themselves to the urban environment, by their own effort and on a mutual aid basis they connected water and electricity to their dwellings.

The data indicated that 81.55% of workers (336) versus 66.67% (199) have indoor water connection and that only 23.53% (165) rely upon public taps. The average distance between dwelling and public taps is 212m for workers versus 210m for householders. (table 43 - 44).

No drainage facilities exist for waste water and women have to throw ^{water} and garbage in the streets in front of their doors.

It was also noticed that 91.73% (642) of families have electricity (table 54); 56.92% (398) have a bathroom; families who have no bathroom in their houses (33.42% workers versus 56% householders) take their bath, wash and launder in rooms or in the kitchen if available (table 46), only 3% (20) of dwelling have no lavatory: 74.06% (296) of workers houses living

in Cairo are connected with a sewage system and consequently have a water closet while 82.33% (247) of householders houses have a trench and 8.33% (25) have a cesspool for waste disposal (table 47).

Cesspools and trenches are flushed or evacuated periodically twice a year in Hadaiq Helwan and over four times a year in Cairo at an average cost of 6.74 L.E. per once in Hadaiq Helwan and 4.60 L.E. per once in Cairo (table 48 - 48').

As for kitchens, 33.24% (233) of the dwelling lack this facility: 112 in Cairo versus 121 in Hadaiq Helwan (table 49).

4. Attitudes Forwards Housing Conditions

The study sought to determine attitudes of householders toward their actual housing conditions: are they satisfied with their dwelling, their neighbourhood their settlement? or are they complaining?..... and if so what are the reasons for their complaints.

Satisfaction could be defined as the absence of complaint or as an explicit statement that the person likes his housing and is happy to live in such circumstances. Many housing studies had shown that satisfaction is related to the following housing characteristics: ownership as opposed to rental, close kinship ties in the neighbourhood, the availability of space and rooms, the availability of a kitchen or a bathroom etc.

According to the results of the present study 53.35% (373) of householders in general are dissatisfied from their present housing conditions. Those who express this feeling are mainly workers living in Cairo (73.25%) (293) while the dominant attitudes among householders living in Hadaiq Helwan is one of satisfaction (73.33%). This is perhaps due to the fact that 81% of them own their houses while 87.03% of workers living in Cairo are tenants (table 50).

The following reasons have been given as the most important sources of householders satisfaction.

<u>Workers (Cairo)</u>		<u>Householders (H.H.)</u>	
- Healthy house	16.82%	Ownership	71.36%
- Good neighbourhood	13.08%	Near work	7.27%
- Near of work	13.08%	Healthy house	6.36%
- Family home	12.15%	Satisfied from all point of view	5.45%
- Cheap	10.28%	Good neighbourhood	2.73%
- Ownership	9.35%	Family home	2.73%
- Satisfied from all points of view	8.41%	Cheap	1.82%
- Large	6.54%	Large	1.36%
- Near of transportation	4.67%	Near school	0.46%
- Have all facilities	2.81%	Near transportation	0.46%
- Near of children school	2.81%		

From this list we can deduce the following conclusions:

It seems that 8.41% of workers versus 5.45% of householders are fully satisfied with their housing conditions.

Ownership represents the main source of satisfaction of householders in Hadaiq Helwan (71.36%) while it accounts for 9.35% of housing satisfaction among workers in Cairo, and only 9.35% of workers living in Cairo.

It seems that ownership represents a social value which is predominant in the sample of the upgrading area. housing represents much more than physical structure; it is a symbol of status and achievement as well as prestige and dignity.

Satisfaction of workers results from the characteristics of the house itself (healthy) its location (good neighbourhood, near work) and its suitable rent (table 51).

When we come to the sources of dissatisfaction of householders from their housing conditions we find that they are ordered as following:

<u>Workers</u>		<u>Householders</u>	
Far from work	27.63%	Small	35%
Small	26.96%	Had no facilities	22.50
Unhealthy	12.62%	Unhealthy	16.25
Had no facilities	11.26%	Far from work	12.50
Shared	6.48	Not satisfied from all point of view	5

Likely to collapse	5.12	Building material	5
High rent	2.74	Far from transportation	3.75
Bad building material	2.74		
Bad neighbourhood	1.02		
Far from transportation	0.68		
Far from school	0.34		

- It seems that the most important complaints of workers are the location of their house which is very far from their work while a great proportion (35%) of householders in Hadaiq Helwan justify their dissatisfaction by the smallness of their dwelling which sounds logic; this latter reason is shared by 26.87% of workers.
- Beside these main complaints householders in the two samples complain about the lack of commodities and facilities.
- Only 2.72% of workers and 5% of householders in Hadaiq Helwan are dissatisfied with their housing conditions as a whole (table 51').

V. Relocation Versus Upgrading

Relocation Versus Upgrading

Relocation

One of the objectives of MOHR/AID programme is to build new area in Helwan to rehouse workers who wish to relocate near their work.

The study aimed to determine the acceptance of workers of this idea, their opinion concerning the housing alternatives offered by the program, their choice between different alternatives etc. and the reasons for their refusal if any of such opportunity.^x

1. Disposition to relocate in the New area

The different alternatives of relocation in term of the size of the dwelling and the monthly instalment were given to the workers in details in order to determine their needs and preferences.

The data indicated that 13.97% (56) of workers refused to relocate versus 67.58% (271) who accepted the idea, the remainders 67 accepted the idea but considered the instalments too high and beyond their means (table 52).

Those who rejected the idea of relocation justify their refusal either by the fact that rent of their current dwelling is very low, or

^x Questions assigned to workers only

because they dont appreciate being rehoused with other workers, the remainder are attached to their actual neighbourhood where they have relatives and friends, they are born there and they are accustomed to living their, and their family and children are also accustomed to the neighbourhood they are attached to their schools and to friends etc.

The following reasons ordered according to their importance were given for refusing the idea of relocation.

Low rent	30.36 %
Dont like to be housed with other workers	28.57 %
All concerns are in actual neighbourhood	10.71 %
Relatives and friends live in actual neighbourhood	10.71 %
Satisfied with my housing conditions	7.14 %
Born in actual neighbourhood	5.36 %
Dont like the idea of moving to Helwan	3.57 %
Accustomed to actual neighbourhood	1.79 %
Children are accustomed to actual neighbourhood	1.79 %

It was noticed that 7.14% of workers are satisfied with their housing conditions and accordingly refuse the idea of relocation and that 3.57% dont like the idea of moving to Helwan per se (table 53).

The analysis of the data showed that those who refused the relocation had the following characteristics. They were middle aged 30 - 50

years (49 out of 56) married (53 out of 56) literate at least a primary certificate (38 out of 56) skilled blue collars (43 out of 56) skilled blue collars (43 out of 56) had more than five persons in their families (36 out of 56) and their total family income was above 40 L.E./month while the relationship between personal characteristics of workers and their refusal to relocate were not significant, family characteristics such as the total family income and the number of persons / rooms (crowding rate) were significantly related to the acceptance of the idea of relocation. The higher the household income and the crowding rate. The greater their acceptance of relocation (table 53¹ - 53⁷).

7. Housing alternatives

a. Number of rooms:

The data indicated that among workers who wished to relocate in the new area of Helwan 70.41% (238) wanted to purchase three rooms, 24.26% (82) wanted two rooms and only 4.44% (15) wanted one room (table 54).

The analysis of the data showed that those who selected three rooms (the majority) had the following characteristics: they were middle aged married (208 out of 241) had at least six years schooling (205 out of 241) were skilled blue collars (208 out of 241) they had more than 5 persons in their families (126 out of 241) and their total family income was above 40 L.E./month (165 out of 241).

While the relationship between personal characteristics of workers and their choice between one, two or three rooms was not significant except for occupational status; family characteristics (total income and number of persons/rooms) were significantly related to this choice; the more higher the total income of families the more higher the number of persons / room, the more they chose a higher number of rooms (table 54¹ - 54⁶).

b. Core house versus apartment:

The study aimed to determine if there was a preference between living on the ground in core houses and in apartment buildings as well as reasons which justify their preferences. The study gave to the potential clients the choice between two extreme alternatives: 1) buying a small core house of one room with a small garden, with possible extension in the future and 2) buying a three room apartment for the same price.

The data indicated that among workers wishing to relocate in Helwan 20.01% preferred to live in core house while 57.99% (196) preferred to purchase an apartment (table 55).

The analysis of the data indicated that workers who preferred core houses and workers who preferred building apartments had the following characteristics.

		Workers (core house)		workers (building apartment)	
age	middle age	106	74.6%	149	76.8%
social status	married	125	88	170	87.6
occupation	skilled blue collars	122	85.9	166	85.5
education	primary certificate	114	80.2	153	78.8
size of the family	+ 5	93	65.4	100	51.5
income	+ 40 L.E. month	91	64	111	57
crowding rate	+ 2 person/room	62	43.7	114	58.7
total		142		194	

There is no significance between personal characteristics or family characteristics and the choice of living in a ground level-house¹₈ or above the ground in an apartment. (table 55 - 55).

Workers who preferred to live in core houses gave the following reasons for their preferences:

I shall feel more independent	69.71%
I can build as I wish	61.97%
I can benefit from the garden	34.50%
It's more private	3.52%
I am not accustomed to live in building	1.40%

From the above list we can deduce that core house means independence and more privacy (table 56).

When we come to the group of workers who preferred to purchase the three rooms in an apartment building we shall find that they justified their preference by the following reasons:

I shall not be able to build the extension	56.75 %
I have many children and I prefer three rooms	28.57 %
The maintenance of the flat is cheaper	19.37 %
The flat is cleaner and more organized	18.36 %
Apartment is safer	11.22 %

The two first reasons given by workers preferring the building apartment can be excluded because we gave them a choice between two extreme alternatives which are not related to their real preferences regarding living in a house or in a building. The two reasons reflect workers need for more than one room to meet the demand for space necessitated by the size of their families. The three last reasons reflect their real preferences for purchasing apartments instead of core houses. (Table 57).

3. Worker's residence area

The study aimed to determine if the potential clients would like to live in the new area assigned to industry workers or if they will refuse this involuntary segregation. The data indicated that 69.57% (240) of workers do prefer that solution because they think that their work could

offer them better services if they are grouped together in the same place (33%); or because of companionship (40.42%) or because they share the same interests, they have the same concerns, and they suffer from the same problems. Workers who refused to live in a worker's residential area argued that they don't like to be housed with colleagues (53.33%) or they don't want their colleagues to interfere in their lives (38.10%) or because they differ with each other from the very beginning and because of that they don't agree to live nearby (table 58 - 59 - 60).

Upgrading

Another aspect of the programme is to provide uncontrolled informal settlements with those utilities and services which are lacking.

The upgrading program will rely upon the participation of residents and their willingness to promote and to improve their socio-economic conditions.

The study was concerned with two issues:

- How owners, in the upgrading area, built their houses. If they had done the work themselves or had they engaged a contractor or a bricklayer, if they had borrowed the money for construction and if so from whom?

In other terms the study thought to determine the residents previous experience with building houses.

- The willingness of owners to repair their houses, their priorities in term of housing improvements, their potential participation in the community development programme.

1. Previous experience in term of building

The data indicated that 78.11% of owners in Hadaiq Helwan had built their houses while 21.89% of them inherited or bought the houses they are living in; 94.91% of those who built their houses could'nt afford to build in one stage; 80.25% of them relied on bricklayers and only 19.75% of them used contractors.

Nevertheless 13.38% of owners have built their houses by themselves. they relied mainly on their children and relatives (table 61 - 63). Only 7.01% borrowed the money to construct their houses by forming a gameya or by borrowing from relatives (table 64 - 65).

2. Participation in upgrading

The data indicated that 95.88% of householders in Hadaiq Helwan were willing to participate by paying on credit the costs of connecting the area and their houses to a sewage system. (table 66) 22.32% of them are ready to pay more than 5 L.E./month to share the expenses of this vital utility.

The monthly average amount that families are ready to pay is 2.80 L.E./month. S.D = 1.52 (table 66').

Householders who refused to participate (4.12%:10) justified their attitudes by the following reasons: inability to afford payment (5) assumption that this is a governmental responsibility (3) or by accusing the government of slow realization (2) (table 67).

3. Housing Improvements

The data indicated that 89.71% of householders would be willing to improve their housing conditions if they have access to credit.

The kind of improvements wanted were ordered in the following manner:

Add rooms	139
New roof	87
Construct and repair water closet	71
Repair the floor	67
Paint the house	54
Repair doors and windows	51

(table 68 - 69)

But if the householders were willing to make housing improvements if they had money they were not ready to make this improvement by dealing with government because they considered the payments too high and the realization of government too slow (table 70 - 71).

39.18% of those who accepted the idea to deal with government had the ability and skills to do the reparations needed by themselves. (table 72).

Services available in the study areas

In spite of the fact that workers were mainly living in Cairo where services like schools, health units, consumer cooperatives, shops, transportation and infrastructure were generally available, 47.63% (190) of them complained that youth clubs are not available and public areas too (42.39%). Transportation and consumer cooperatives are the main services that are available though in insufficient quantities.

As for householders in Hadaiq Helwan, where there are only three primary schools and one community welfare association in the whole area, people in general area aware of the lack of services of all types; there main complaint however is about the lack of a sewage system and the lack of preparatory and secondary schools.

The two means of transportation upon which people rely are the train at about 1 km. and the public bus at about 1.500 km.

The nearest health unit, and maternal and children center are in Maasarah at about 4 km. When we take into account that the area lack the presence of most services, it seems only natural that householders request the connection of the area to a sewage system as the most important need

required (73.67%), it is followed by schools (71.33%) transportation (60.67%) and a consumer cooperatives (43.67%). Concerning the non availability of services in the area it seems that a health units and a youth club represent the most important services that must be included in the area, they are followed by maternal and child centers, public areas (table 73 - 74 - 75).

Summary

A summary of the results of the market analysis shows the following:

1. The two samples chosen for the market analysis are composed mainly by industrial working either in NASCO or in other industrial factories in Helwan. They are mainly married (87.03% workers versus 94.67% householders in Hadaiq Helwan) middle aged (average 34.33 years and 43.43 years respectively) engaged mainly in industrial work as skilled (83.54% and 42.67% respectively) or unskilled blue collars (6.93% and 17% respectively) and they have spent 14 years on the average in their current job (12.95 years and 15.06 years respectively), literate (97.26% and 70.33% respectively).
2. The general pattern of their households is the nuclear family (91.52% and 90.33% respectively), the average size of their family is 5.21 persons (4.88 and 5.25 respectively).
3. Illiteracy spread between wives (31.84% and 61.43% respectively) only 16.44% of wives could read and write they represent 20.67% of workers wives versus 11.26% of householders wives in Hadaiq Helwan, their low educational level severely limits their participation in the labor force 81.95% of workers wives versus 90.11% of householders wives were out of the labor force at the time of the study.

The number of children covered by the study reached 1778: 53.94% males versus 46.06 females; 32% of them were less than five years and under the age of schooling (43.19% and 33.37% respectively) 1.59% were between five and twenty (54.08% versus 67.93 respectively) and 6.41% were still dependent youth (2.72% and 9.24% respectively).

1.57% of children who were above the school age were illiterate (2.59% and 7.85% respectively) 24.18% could read and write (18.16% and 28.80% respectively) 28.63% were in schools (primary, preparatory and secondary) and in the university 25.55% of workers children versus 30.99% of householders children.

9.16% of children of both samples were working at the time of the study.

The average monthly income of householders is 41.88 L.E./month (42.81 and 41.63 respectively).

Families have mainly one principal wage earner, the average total family income is 49.70 L.E./month (50.49 L.E./month and 48.90 L.E./month respectively) with an average per capita income of 11.26 L.E./month (12.91 L.E./month and 9.61 L.E. respectively).

Food devour 25.75 L.E./month of families income (26.88 L.E./month and 26.82 L.E./month respectively) or more than the half of their income.

7. While 87.03% (348) of workers are tenants, 81% of householders in Hadaiq Helwan own their houses either completely or as a joint property.
8. The general pattern of buildings in workers residence is the multi-floors building (88.28%) while the general pattern of building in the upgrading area is the one of two floors building (86%).
9. Houses of workers as well as householders in Hadaiq Helwan are matching redbrick with stone or concrete (76.81% and 72.33% respectively) roofs are mainly in concrete (72.32% and 77.67%) floors are in tiles (84.04% of workers houses) or in plain concrete (34.67%) and in tiles 46% in householders houses in Hadaiq Helwan.
10. The average monthly rent paid by tenants is 6.33 L.E./month (6.23 L.E. and 6.95 L.E. respectively).
1. The average number of rooms per household is almost similar 2.65 and 2.98 respectively).
2. The average number of persons/room is relatively high in both samples (2.38 persons/room and 2.23 persons/room respectively).
3. Dwelling are mainly connected with water (81.55 of workers versus 66.76% in Hadaiq Helwan) and electricity (93.27% versus 89.67%).

14. 66.58% of workers dwelling versus 44% of householders in Hadaiq Helwan have a bathroom and 28% versus 40.3% have a kitchen. While 74.06% of workers dwelling have a sanitary water closet, householders in Hadaiq Helwan rely on trench and cesspools.
15. While 73.25% (293) of workers are dissatisfied with their present housing conditions the dominant attitudes among householders living in Hadaiq Helwan is one of satisfaction (73.33%).
16. Ownership of the dwelling (220) represents the main source of satisfaction of householders in Hadaiq Helwan (71.35%).
17. The most important source of dissatisfaction of householders in Hadaiq Helwan is the smallness of their dwelling (35% = 28) and the lack of facilities (22.50% = 18) while it seems that the location of workers dwelling which are very far from their work (27.65% = 81) and the smallness of their dwelling (26.96% = 79) represents their main complaint.
18. 67.58% (271) of workers wish to relocate in Helwan and to purchase new houses if we add to those, workers who accepted the idea of relocation but considered the instalments too high (67) the percentage of workers who welcome the idea will reach 86.03%.
The data showed that the higher the total income of families and the higher the number of persons/room the more their acceptance of the principle of relocation.

70.41%(238)workers who welcomed the idea of purchasing new houses in the new area preferred to purchase three rooms the data showed that the higher the total income of families the higher the number of person/room the more they are likely to choose a higher number of rooms.

While 42.01% (142) of them prefer to live in core house, because it means independancy and more privacy, 57.99% (196) of them prefer to purchase an apartment building (because apartment is cheaper in maintenance (38), it is cleaner more organised (36) and safer (22)).

We must deduct from this percentage those workers who prefer to purchase an apartment because they have many children and prefer three rooms (56) or because they think that they will not be able to build extension (extreme alternatives were given to them to determine their real preference).

Those who rejected the idea of relocation justify their refusal by the fact that they are satisfied from their actual housing conditions and that the rent they pay for it is very low.

12. Voluntary segregation is a matter of choice. it occurs when the individual (personal decision) seeks to live with others of his own kind and apart from those who are different. 69.57% (240) of workers preferred that voluntary segregation because they think that their company could offer them better services if they are grouped together in the same place.

After discussion of relocation programme with workers we can recommend that public loans can be used to stimulate self help by providing core house which can be expanded by the occupants or to provide land and infrastructure on which families could build their own house under the control of the city authorities to assume an appropriate standard.

3. Hadaiq Helwan is composed by rural migrants who, ten or twenty years ago, worked in the area and because of the increased concentration of population in the capital have chosen this area to settle in, their dwellings have been built by their spontaneous efforts, they connected their dwelling to water and electricity they built a community welfare association without any help from the government. Householders are willing to participate in any project in the sphere of the socio-economic development of their settlement. 95.83% are willing to pay on credit the costs of the connection of the area and their houses to a sewage system, some of them 22.32% are ready to pay more than 5 L.E./month to share the expenses of this vital utility. 89.71% of householders are willing to improve their housing conditions if they have access to credit they mainly want to add rooms (139) or repair the roof (87) or the floor (62) ect.

After discussion of upgrading programme with householders in Hadaiq Helwan we could recommend the following.

Measures to improve Hadaiq Helwan could vary from supplying the area by a sewage system and access road to improving housing conditions to introducing community facilities to training the settlement dwellers...

Self-help and dwellers participation in upgrading their community could be a good formula to introduce the improvements required and needed.

Public loans can be used by providing materials especially roof material which enable those who have built already their walls to roof their dwelling or to provide them with doors and windows.

Summary of Socio-Economic and Housing Conditions.

Personal characteristics:

	Workers	Householders in H.H.
Average age	34.33 years	43.43 years
Marital status	87.03% married	94.67% married
Educational level	97.26% literate	
Occupation	83.54% skilled labourers 6.98% unskilled	42.67% skilled labourers 17% unskilled
Average years spent in current job	12.95 years	15.06 years
Average monthly income	42.81 L.E.	41.63 L.E.

Household characteristics:

Household pattern	91.52% nuclear	90.33% nuclear
Average number of person/household	4.88	5.87
Average number of children/household	1.92	3.35
Average total household income	50.49 L.E.	48.90 L.E.
Average per capita income	12.91 L.E.	9.61 L.E.
Average expenditure spent on food	26.88 L.E.	26.82 L.E.
Average expenditure spent on rent	6.23 L.E.	6.95 L.E.
Average expenditure spent on transportation	2.56 L.E.	1.42 L.E.
Average expenditure spent on electricity	1.59 L.E.	1.38 L.E.

Housing Conditions:

	Workers	Householders in H.H.
Type of tenure	87.03% tenants	81% owners
Average number of rooms	2.65	2.98
Average person/room	2.93	2.23
Type of building	multi floors	one or two floors
Building material	76.81% redbrick with concrete	72.33% redbrick with stone
Roof system	72.32% concrete	77.67% concrete
Floor system	84.04% tiles	34.67% plain concrete 46% tiles
Have water connection	81.55%	66.78%
Have electricity	93.27%	89.67%
Have a bathroom	66.58%	44%
Have a kitchen	28%	40.3 %

Satisfaction with housing conditions:

Satisfied	26.75%	73.33%
a. Sources of satisfaction	healthy location suitable rent	ownership
b. Sources of dissatisfaction	far from work small	small lack of facilities

Case Study: Mahmoud Mohamed Mahmoud /

Mahmoud is 36 years old. He is married and has two children. He lives in El Shorabeya.

Education and social conditions:

Mahmoud had obtained a preparatory certificate. He is working from 18 years in El Nasr factory for cars. He works as a mecanicien of Diesel in the section of tractors. The distance between his house and the work is about 30 kms. He uses the public communications to go to work (bus then train). His salary is about 34 L.E. He also has a personal source of income which brings him monthly 10 L.E.

Family:

Mahmoud's wife is 28 years old. She has her preparatory certificate. She does not work. They have two children: a girl and a boy, of 4 and 2 years old.

Mahmoud's father in law is also living with them.

Present house:

Mahmoud is living in the fourth floor of a building in El Shorabeya. The house is composed of four floors and is constructed with red bricks and cement.

The flat of Mahmoud is composed of 2 rooms (crowding rate = 2.5). He pays a rent of 8 L.E. He has a kitchen and a bathroom. He also has electricity and a current water system.

Mahmoud has almost all the modern commodities: radio, television, cassette, washing machine, oven, refrigerator.

Opinion toward the house:

Mahmoud and his wife said that their house has some advantages. The neighbourhood is good, the people are kind and helpfull and they find easily all the services. They said also that the house is healthy and the infrastructure are available. But they mentioned some disadvantages. First the rent is high. Second, the house is far from the work. Third, the house is small comparing with the size of the family.

About the availability of services, they said that they can find all their needs except clubs which are lacking in this area.

Opinion toward the project:

Mahmoud and his wife preferred a flat in a building. They choosed a three rooms house. But they said that the instalments should not exceed 9 L.E. monthly.

Income and expenditure:

The total income of Mahmoud is 44 L.E. monthly. The average income per person is about 8.8 L.E. They expend about 60 L.E. monthly on:

30 L.E. for food, 2 L.E. for electricity 3 L.E. for clothes, 2 L.E. for transportation, 2 L.E. for children's pocket money, 3 L.E. for house requisites, 3 L.E. for medicine, 8 L.E. for the rent of the house, 7 L.E. for cigarettes.

Case study: Mohamed Said Ahmed 2

Mohamed is 38 years old. He is married and has two children, a boy and a girl, aged 1 and 5. He lives in Cairo in El Abasseya.

Profession and present income:

Mohamed has obtained his secondary school certificate. He also had a diploma of technical formation from the technical center of Matareya. He is specialised in instruments and execution of instruments' parts.

He is working in El Nasr factory of cars in the section of instruments' engineering from 15 years. He is a skilled worker and has a net monthly income of 51 L.E. He uses the factory bus for going to his work which costs him 3 L.E. monthly. The distance between his house and the factory is about 27 kms.

Family and social conditions:

Mohamed lives in 4 rooms. His family is composed of 7 persons. His wife is 28 years old. She has a commercial secondary diploma. She is still a student in the institute of cooperative studies in the third year. She is working at the same time in the ministry of agriculture at Dokky. Her monthly salary is about 25 L.E. She uses every day the public communications to go to her work. The distance between her house and the ministry is about 10 kms.

Mohamed has 2 children who are under the age of education. There are also three other persons in Mohamed's house: his mother who is 60 years

... his brother and sister in the preparatory classes. The only source of income for the family is the salary of Mohamed and his wife.

Income and expenditure:

The total income of Mohamed's family is about 75 L.E. per month, the average income is about 11 L.E. per person. Their total expenditures are 60 L.E. per month partitioned out as follows: 6 L.E. rent of apartment, 3 L.E. for electricity, 15 L.E. for medicine, 6 L.E. for clothes, 10 L.E. for telephone, 4 L.E. transportation, 4 L.E. for education, 20 L.E. for food.

Mohamed has almost all the principal domestic instruments except a water heater. He has a radio, a television, a cassette, a washing machine, an oven and a refrigerator. He also has a telephone.

Present house:

Mohamed's house is a flat composed of 4 rooms. He lives at the fourth floor. It is a modern house constructed with bricks and cement. The floors are covered with tiles. They have electricity and a current water system. There are also a bathroom and a kitchen. The house is healthy and well aerated. The rooms' dimension is 3m x 3,5m. The furniture is good.

Advantages and disadvantages of the house:

Mohamed and his wife are well settled in their house. They think that the placement is good: in the center of Cairo and near all the services.

vices which are available. It is a good neighbourhood and its prices are moderate.

The only disadvantage of the house is that it is a small one comparing with the size of the family. They would prefer a six rooms flat. (crowding rate = 1.8).

Opinion toward the project:

Mohamed and his wife prefer not to move to Helwan because they are well settled at El Abbasseya. Mohamed showed some enthousiasm for the project but under conditions: It must be near all the services needed. The monthly payments must not exceed 6 L.E. He is also ready to pay an advance equal to the quarter of the total costs. He would prefer a 5 rooms flat.

But his wife does not approve the project. She does not like to live with the companions of her husband in the same area.

Case Study: Sayed Ali El Sayed ٢

Sayed is 28 years old. He is a bachelor. He lives in Bulak El Dakroun.

Profession and present income:

Sayed has obtained a secondary school certificate. He is working from 10 years in El Nasr factory for cars. He is a skilled worker. His monthly salary is 31 L.E. The distance between his house and the factory is about 35 kms. He uses the factory bus to go to work.

Family and social conditions:

Sayed is unmarried. His parents are alive and he has 2 brothers and three sisters. He lives with his married sister who has 2 sons and a daughter. So the house where Sayed lives in is his brother in law house. They are 6 persons in the flat.

Present house:

Sayed lives with his brother in law in a 2 rooms flat. The building is composed of four flats and is constructed with red bricks and cement. The floors are covered with tiles. Sayed lives at the first floor. They have electricity and a current water system. They also have a kitchen and a bathroom. The house is too small for the family (crowding rate = 3). The rent is 11 L.E. per month.

Opinion toward the house:

Sayed is unsatisfied of the house he lives in. First, it is very far from his work. Secondly it is too small. And thirdly, the rent is high.

The house is very crowded, Sayed and his brother in law are not in good terms. The neighbourhood is overpopulated and noisy. Children are playing football all day long in front of the house.

Opinion toward the project:

Sayed approved very much the project. He would prefer to buy a flat in a building. He would choose a 3 rooms flat. He is ready to pay 3 L.E. per month. But he does not like to live in an area assigned for workers because he refuses to live with his companions.

Availability of services:

Sayed said that almost all the services are available near his house except clubs.

Income and expenditure:

The total income of Sayed is 31 L.E. per month. Their total expenditures in the house are 76 L.E. portioned out as follow: 25 L.E. for food, 2 L.E. for electricity, 5 L.E. for clothes, 4 L.E. for transportation, 10 L.E. children pocket money, 5 L.E. for house requisites, 5 L.E. for medicine, 11 L.E. for rent, 9 L.E. for cigarettes.

They have a radio and an oven.

Case Study: Yehia Mohamed Badawi 4

Yehia is 30 years old. He is married and has one child. He lives in Cairo in Hadayek El Kubba.

Profession and present income:

Yehia has obtained a general certificate of engineering (advanced level). He is working from 6 years in El Nasr factory of cars in the section of Diesel motor. He is an engineer and has a monthly salary equal to 55 L.E. The distance between his house and the factory is about 30 kms. He uses the factory bus for going to work.

Family and social conditions:

Yehia's family is composed of 3 persons: His wife, a daughter and himself. His wife is 24 years old. She is also an engineer and has obtained a general certificate of engineering (advanced level). She works in the factory with her husband, in the section of central planification. Her salary is about 44 L.E. She uses the factory bus for going to work. Their daughter is one year old.

Income and expenditure:

The total income of Yehia's family is 99 L.E. per month. The average income per person is about 33 L.E. Their total expenditures are 62 L.E. monthly, portioned out as follow: 27 L.E. for food, 2 L.E. for electricity, 14 L.E. for clothes, 2 L.E. for transportation, 5 L.E. Baby's food, 3 L.E. house requisites, 2 L.E. for medicine, 8 L.E. rent of the house.

Present house:

Yehia lives in a house composed of 3 rooms and 2 vestibules. The flat is at the third floor of a three floors house. The building is constructed with red bricks and cement. The floors are covered with tiles. They have electricity and a current water system. Yehia has also a bathroom and a kitchen. The house is healthy. Yehia thinks that the size of his house is convenient for his family (crowding rate = 1).

Yehia lives in the house of his father but he pays a rent as an assistance to him.

The street where Yehia's house is built is not paved. The neighbourhood is not good.

The furniture of the house is very good and Yehia has almost all the commodities: Radio, television, washing machine, oven, refrigerator.

Opinion toward the house:

Yehia and his wife think that their house is not good. They want to move because the neighbourhood is improper with their social conditions

Opinion toward the project:

Yehia and his wife approved the project. They would like to have a three rooms house. But they prefer to live in one flat house with a garden and not in a building. They are ready to pay a monthly instalment equal to 12 L.E. But they would like the land to be bigger (120 m² or 150 m²). They think that moving to Helwan will be better for them because they will live near their work.

They suggest that the houses built would group the workers according to their conditions: engineers, doctors, labourers. These groups will be conform to the culture and education and will have the same interests.

Availability of services:

Yehia thinks that near his house schools, shops, transportation and infrastructure are available. But health units and consumers cooperatives are lacking. Youth clubs, and maternal and child centers are not available.

Case Study: Mohamed Ahmed Salem 5

Mohamed is 28 years old. He obtained a technical secondary school diploma, and he lives in El Matareya.

Profession and present income:

Mo. is a skilled worker. His monthly salary is 39 L.E. The distance between his house and his work is about 50 kms. He uses the factory bus to go to work.

Family and Social conditions:

Mo. is a bachelor, but he is engaged and is looking for a flat. He lives with his brother in law who was working as a policeman, and he retired now. The family of his brother in law consists of 9 persons.

Present house:

Mo's. flat - or his brother in law flat - is composed of 2 rooms and a very small hall, in a slum area, the streets are not paved, the house is in a very bad condition and it is built of red bricks and cement and it is supplied with electricity and a current water system. The rent is 3 L.E. per month. The flat is too narrow for the family (crowding rate = 4.5).

Opinion toward the house:

Mo. is unsatisfied with his present condition in this house because he is not independent and he is not able to get married in the flat of his

brother in law. Moreover the area is not healthy and it is too far from his work which costs him a long time to go to his work in Helwan.

Opinion toward the project:

Mo. showed big unthuisiasm for the project: first it will be near from his work, secondly, for independence, and thirdly, because it will be useful for him in maintaining the future of his children. Due to the third reason he had chosen the model of a villa consisted of three rooms with a monthly instalment of 12 L.E. He urged that the system of instalments is not exhausting.

Mo. said that he is ready to pay the monthly instalment only, but he asked to decrease it to 8 L.E. in order that he may not overload his budget.

He said that his fiancé had obtained a high school education, and her salary is 15 L.E. per month she will help him in paying the monthly instalment requisites for the proposed house in Helwan.

Income and expenditure:

The total income of Mohamed is 39 L.E. per month. He said that he pays 10 L.E. to his brother in law for food 1 L.E. for electricity, 2 L.E. for house requisites, 5 L.E. for clothes, 3 L.E. for medical drugs, 3 L.E. for transportation, 4 L.E. miscellaneous and he does not pay a rent since he lives with his brother in law.

Case Study: Anouar Said Ali

Anouar is 39 years old. He is married and has six children .
He lives in Boulak Abou El Ela.

Education and social conditions:

Anouar can read and write only. He has no certificate. He is working as a skill worker in the section of tractors and transportation of El Nasr factory for cars. His salary is 38 L.E. per month. The distance between his house and the factory is about 30 kms. He walks every day till the public communications which he uses for going to work.

Anouar suffers of a sickness in the bones of the ears. This illness does not allow him to work in the afternoons for having a supplementary income.

Family:

Anouar's wife is 32 years old. She is illiterate and does not work. Anouar has six children, 5 sons and one daughter, aged from 12 to 2. Four of them are in the primary classes.

Present house:

Anouar lives in a slum area in a three floors house. He is renting one room for 5 L.E. per month. The house he is living in, is composed of separate rooms each one rented to a family. All the families uses a common bathroom.

The room where Anouar lives is 4 x 4m. They have neither a kitchen, nor a current water system. The closest tap is 20 meters far. They have electricity.

The building is constructed of red brick. The roof is from wood and the floor is covered with tiles. The common bathroom has a trench system for draining. They flush twice a year which costs one pound each time. The house is likely to collapse.

The room where Anouar lives, has only one window. The furniture is very poor. They have one bed put on stones, an old carpet, a sofa, a cupboard for food and another one for clothes, and some vessels. The room is used for all purposes: sleeping, eating, cooking, receiving visitors, studying...

The neighbourhood is very bad. The street where Anouar lives, is very narrow (1.5 meter). It is a slum area, very crowded, and full of cafes where "out of law" stay.

Anouar has a radio and a television.

Opinion toward the house:

Anouar is unsatisfied of his house for many reasons. It is too small for his big family (crowding rate = 8). The rent is very high for the room. Anouar said he can only pay 3 L.E. for this room. The house is likely to collapse and the infrastructures are lacking.

Anouar complained also of the neighbourhood. His children play with bad ones and learn very bad habits from them.

Opinion toward the project:

Anouar was very enthusiast for the project. He is ready to move to Helwan because his present house is unsuitable for his big family. At Helwan, he will be near his work which will save him the costs of transportation and four hours daily spent in going to work. His wife shares him the same opinion. They choosed two rooms. They prefer a house with a garden so he might built it in the future. But he doesn't like to live in an area assigned for workers because he doesn't want his colleagues to interfere in his life.

Availability of services:

Anouar said that schools, health units, consumer cooperatives, and shops are available near his house. But clubs, transportations, and infrastructure are lacking.

Income and expenditure:

Anouar's monthly income is 38 L.E. The average income is 5 L.E. per person. But he mentioned that his father helps him sometimes, he didn't said how much he gives him.

Their monthly expenditure are about 51 L.E. portionned out as follow: 20 L.E. for food, 1 L.E. for electricity, 5 L.E. rent of the house, 3 L.E. for clothes, 1 L.E. for medecines, 8 L.E. for cigarettes,

3 L.E. for children pocket money, 2 L.E. for schools, 3 L.E. for transportation, and 5 L.E. for house requisites.

Case study: Fikri Abdel Malak Salib 7

Fikri is 29 years old. He is married and has a daughter. He lives in Hadayek El Kubba.

Education and social conditions:

Fikri has obtained his secondary industrial diploma. He is working from ten years as a supervisor in the parts section of El Nasr factory of cars. The distance between his house and his work is about 30 kms. He uses the factory bus for going to work. His salary is about 38 L.E.

Family:

Fikri's wife is 25 years old. She has obtained a commercial secondary diploma. She doesn't work.

Fikri and his wife have a daughter aged 3.

Fikri's mother is living with them in the same house. She has a monthly income of 11 L.E. Fikri's brother is also living with them. He has a monthly income of 16 L.E. But Fikri said that his wife and himself have a separate budget.

Present house:

Fikri is living in the third floor of a three floors' building. His flat is composed of 4 rooms and a hall (crowding rate = 1.3). The house is built with bricks and cement. The floors are covered with tiles. They have a kitchen and a bathroom. They also have electricity and a

current water system. The furniture of the house is new. Fikri has a radio, a television, a washing machine, an oven and a frigidaire.

The house was built in 1965 in one stage. Fikri's mother is the owner, so he doesn't pay a rent.

Opinion toward the house:

The neighbourhood of Fikri's house is very bad. The streets are not paved and very narrow. The environment is unhealthy. The sewage is in bad condition. It is a slum area. Garbage and dirty water fill the streets.

But Fikri is satisfied of his house because it is a joint property.

Opinion toward the project:

Fikri and his wife were very enthusiast for the project. They choosed a house with a garden. They would prefer a three rooms house but the instalments are very high. They are ready to pay 7 L.E. per month. The area of this buildings must be provide with all services.

Fikri would like to live in an area managed for labourers because of companionship.

Availability of services:

Services are not well provided in the neighbourhood of Fikri. Infrastructures are in a very bad condition. Youth clubs are not avail-

able. Transportations are lacking. But schools, health units, consumption cooperatives, shops, and maternal and child centers are available.

Income and expenditure:

Fikri's income is 38 L.E. per month. His mother and his brother have a separate budget of 27 L.E. per month. The average income is 13 L.E. per person. The total expenditures of the family are 41 L.E. per month portioned out as follow: 20 L.E. for food, 1 L.E. for electricity, 3 L.E. for clothes, 2 L.E. for house requisites, 3 L.E. for medicines, 7 L.E. for cigarettes, 5 L.E. for the child.

Case Study; Ahmad Abdel Razik Ahmad 8

Ahmad is 32 years old. He received a high school education. He lives in Hadaiq El Koba.

Profession and present income:

Ahmad has obtained a technical education. He is working from 10 years in El Nasr factory for cars. He is a skilled worker. His salary is 38 L.E. the distance between his house and the factory is about 30 kms. He uses the public means of transportation to go to his work which costs around 2 L.E. due to the fact that the company pays him the cost of the train.

Family and Social conditions:

Ahmad is married. His wife is 27 years old. She obtained only basic education; she can read and write. He has two kids; kamal who is 4 years old and Elham, she is 2 years old. His mother also is living with him; she is 60 years old and does not have any source of income. The family crowding rate = 0.8).

Present house:

Ahmad lives in a slum area in Manshiat El Sadre in a 4 floors house; his flat is in the first floor. It consists of 4 rooms and is constructed with stones and cement; the flat is supplied with electricity and current water system; the flat is healthy and well furnished.

Opinion toward the present house:

Ahmad is satisfied with his house, because all the services are available in the area, the only problem the family is suffering from, is the noises of the street. Ahmad's wife is sharing his opinion about the present house.

Opinion toward the project:

Ahmad's wife is not willing to leave her house to any other area, since all her relatives are living in the same area, but her husband showed a desire to go and stay in Helwan. He had chosen the model "C" and he is ready to pay any monthly instalment whatever that the total value of the building should be payed on a period of 20 years. He said that he is ready to pay the requested instalments but it should not be more than 300 L.E.

Availability of services:

Ahmad said that all services are available in the area of his house.

Income and expenditure:

The total income of Ahmad is 38 L.E. per month. The total expenditures in the house are 38 L.E. portioned out as follow: 25 L.E. for food, 2 L.E. for clothes, 6 L.E. for rent 2 L.E. for transportation. and 3 L.E. for miscellaneous.

Case Study: Mohamed Hassan Ahmed 9

Ahmed is a 28 years old. He has got married two monthes ago.

Education and social conditions:

Ahmed has a high school diploma from technical schools. He is working as a skilled worker in a company located in Helwan. His wife is not working.

His dwelling is quite far from his work place. He lives in Choubra, and has to go every day to Helwan. It takes him one hour and half in the morning and as much in the evening to go to his work and come back. The distance between his home and work is about 32 kilometers. Ahmed has to pay 120 P.T. per month for the bus, but the train is being in charge of the company.

Present house:

Ahmed is living with his wife in one room, which is located in his sister's apartment, but has an independant door. He rents this room for 3 pounds per month. The apartment is located in Choubra. It has water and electricity, it is healthy, and the rooms are large enough. but the neighbourhood is crowded and noisy.

Opinion toward the present house:

It seems, from the discussion with Ahmed and his wife, about their attitude toward the neighborhood, that they would like to stay in this neighborhood if they find an independant apartment. The reason is that this neighborhood has all the public services, whether health services, or schools, or means of transports, or markets. An additional reason is that Ahmed and his wife have most of their relatives in this neighbourhood. But in view of the fact that they have not yet an apartment, they are ready to live in the new dwellings which are going to be built there.

Opinion toward the project:

Ahmed has given his preference to the model number 3 which is composed of 3 rooms and their commodities, and which has 20 or 30 meters of free land. The reasons of this choice are the following:

- He prefers the 3 rooms, because he has not the opportunity to build in the future.
- He will need the 3 rooms in the future when he will have children.
- The free space will allow him to rear poultry in the future and to plant some vegetables.

But the problem is that Ahmed can pay only 7 pounds per month as instalments for this apartment (instead of 12 pounds), for a period of twenty years, after which the house will be his own. He is ready to pay the sum due in advance, which is one quarter of the total price of the apartment.

Income and expenditure:

Monthly expenditures of the family.

	Pounds
Food	20
Clothes	2
Housing	3
Transport	2
Cigarettes	-
Medical care	Taken in charge by the company

The monthly salary of Ahmed is about 25 pounds.

Case Study: Zaki Fouad Ahmed 10

Zaki is 35 years old. He is unmarried and he lives with his mother and brother.

Education and social conditions:

Zaki has a secondary school diploma, in vocational training. He is working as a skilled worker in a factory of cars. He has to take a public bus, and then the train to go to his work. The distance between home and work is about 30 kilometers.

Present house:

Zaki lives in a 3 rooms apartment located in Hemia-el-guidida. The general aspect of the apartment is lower than average, but the family owns a radio, a television and a recorder. The apartment has also a kitchen and an independent bathroom.

Opinion toward the present house:

He is satisfied with his apartment because it is located in a popular neighbourhood which has all the necessary public services. But he would like to leave it in the future and have a better one. He is also satisfied with the neighborhood.

Opinion toward the project:

As regard to the housing project, Zaki prefers to take a piece of land with 3 rooms already built, instead of having to build them by himself. He is ready to pay monthly 12 pounds, but he would prefer to pay only 10 pounds. He is also ready to pay 200 pounds in advance.

Income and expenditures:

Monthly expenditures of the family

Housing	6.5
Water and electricity	1.5
Public transport	3
Clothes	5
Medical care	5
Cigarettes	10
Newspapers and reviews	1
Food	30
Recreation	-

Zaki's brother pays monthly 10 pounds as a contribution to the budget of the family. Zaki himself has a total income of 22 pounds; he receives 37 pounds as a salary from his principal job, and 10 pounds as incentives, he also has an additional job of which he gains about 15 pounds.

Case Study: Abdel Razeq Abdel Khalek Ahmed 11

Abdel Razeq is a 35 years old. He is married and he has 3 sons and one daughter. His two elder children go to school. The 2 others are too

Education and social conditions:

Abdel Razeq can read and write. He is working as a skilled worker in a factory located in Helwan. His wife has intermediate education; she is 30 years old, and she is not working. He has to take a public bus, and then the train to go to his work. The distance between home and work is about 35 kilometers, and it takes him 4 hours daily to go to his work and come back.

Present house:

The family is living in a two-rooms apartment in Embabah. It has a bathroom, and is located on the third floor, on the roof. It is a very old house and the socio-economic level of the neighbourhood is very low. The ceiling of the apartment is made of wood, and the floor is made of tiles. The furniture of the house is composed of a bed, a board, and a carpet in each room. The family has also a butagaz and a radio.

Opinion toward the present house:

Abdel Razeq and his wife are not satisfied with their appartement. They would like to leave it, because it is far from the place of work, and because it is too narrow for a family of 6 persons.

Opinion toward the project:

Abdel Razeq and his wife would like to live in Helwan, in a 4 rooms appartement with a garden, as the housing project proposes to them. They are ready to pay 12 pounds per month as a credit, until the appartement becomes their own. They are also ready to pay the sum due in advance. But it seems, that they prefer the project which proposes them a place of land with one room so that they can build for themselves other rooms. They prefer this project because they will feel more independent. Some years ago, the factory has given them a one room appartement in a block, but after a while they left it, because the block is not suitable for them.

Income and expenditures:

Abdel Razeq has a 30 pounds salary and he earns about 20 pounds from an outside job. Hence, his total income is about 50 pounds.

Monthly expenditures of the family:

	Pounds
Rent of the appartement	3

Electricity	0.30
Means of transportation	1
Schooling	1
Food	25
Clothes	4
Cigarettes	10
Medical care	3
Recreation	1
Children pocket-money	3

Case Study: Mohamed Hassan Awad

Mohamed is 25 years old. He is unmarried. He lives with his family which is composed of his father and mother, three brothers and one sister.

Education and social conditions:

Mohamed has a technical intermediate diploma. He is working as an employee in a company located at Wadi Hof (near Helwan). He takes a public bus until Bab-El-Louk Station, and then he takes the train. The distance between his home and work is about 25 kilometers.

Present house:

The family is living altogether in a two-rooms apartment; the apartment has also a bathroom and a kitchen. It is on the fifth floor, the last floor of the building. It is located in Sayeda Zeinab which is not far from the train station of Helwan.

Opinion toward the present house:

Mohamed is not very satisfied with his house. It is unclean and the neighbourhood lacks the necessary services and commodities.

Opinion toward the project:

When the housing project has been exposed to him. Mohamed has chosen the two rooms apartment with a free space. He is ready to pay 7 pounds per month as well as he is ready to pay a sum of 500 pounds in advance.

Income and expenditures:

Mohamed income is about 25 pounds per month, 19 pounds as a salary and 6 pounds as incentive. He has not any other source of income. Mohamed pays to his family 6 pounds monthly for housing and food.

Monthly expenditures of Mohamed.

Housing and food	6
Clothes	4
Newspaper	0.60
Transportation	0.50
Recreation	2
Cigarettes	-

In spite of the poor aspect of the apartment as a whole. The existence of many modern instruments such as ^abutagaz, a refrigerator and a recorder has been noticed.

ANNEXE I

National Center for Social and
Criminological Research.

Urbanization Research Unit.

Serial number

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Interview Schedule

Name :
Address :
Floor :
Number of the Unit :

Name of Interviewer :
Field Revisor :
Puncher :
Punching Revisor :

Date of visit :
Date of Revising :
Date of Punching :
Date of Revising :

Interview Schedule(1) Information about the head of the Household :

1- Are you married ?

Yes (1) Unmarried (2)
 divorced (3) Widower (4)

If (1) ask question 2. if not ask 3

2- Are you married to one wife or more ?

one wife (1) two wives (2)
 3 Wives (3) 4 wives (4)

3- How old are you ? (Full number in years)

4- What is your education level ?

Illiterate (1) Read and write (2)
 Primary (3) Preparatory (4)
 Secondary (5) Intermediate (6)
 University degree (7)
 Younger than school age (8)

5- What is your present Job ?

Cultivator.....(1) Unskilled labourer (2)
 Skilled worker...(3) Artisan (4)
 Self employed....(5) Employee..... (6)
 Tradesman.....(7) Service Labourer.. (8)
 Military.....(9) Student.....(10)
 , Less than 6 years(11) Unemployed.....(0)

6- How many years have you been working in your present Job ? (in years)

7- What is the distance between your home and your work ?

home code	work code
()	()

8- What is your means of transportation to work ?

On foot.....(1)	Public transportation(2)
Company bus.....(3)	Bycicle(4)
Taxi.....(5)	Boat.....(6)

(If more than one variable use center code).

9- Monthly income ? (Real number in pounds)

Salary.....

Incentive.....

Overtime.....

Other.....

(II) Information about the Socio-economic conditions of families :

10- We want to have some informations about your family, your children and other people living with you

S.N.	Kinship to the head	Sex (1)	Age (2)	Educa- tion (3)	occupa- tion (4)	Income (5)	Place of work (6)	Distance home/work (7)	Station (8)	Observation
	Wives									
	1									
	2									
	Children									
	1									
	2									
	3									
	4									
	5									
	6									
	7									
	8									
	Married children living with head									
	1									
	2									
	3									
	4									
	others									

1. Sex: Male(1) Female(2)
2. Age: real number
3. Education: code question 4
4. Occupation: code question 5

5. Income: real number
6. Place of work: Hadaique(1) Cairo districts(code D.)
7. Real number of K.m.
8. Code question 8

Questions from 11-16 are not to be asked.
Interviewer has to fill them from the
precedent table.

- 11- Type of family
 nuclear (1) extended (2) joint household (3)
- 12- Number of families in a joint household
 (real number)
- 13- Joints household families are
 relatives (1) not relatives (2) both (3)
- 14- Total number of persons living in the
 household (real number)
- 15- Total income of the family (real income)
- 16- Per capita monthly income $\frac{\text{question 15}}{\text{question 14}}$

(II) Information about the Housing conditions:

- 17- Number of floors if any ? (real number)
- 18- Are floors divided into rooms or apartments?
 rooms (1) apartments (2) both (3)
- 19- Number of rooms in your apartment? (real number)
- 20- Crowding rate $\frac{14}{19}$
- 21- How many rooms do you need to be comfortable in
 your house ? (real number)

- 22- Do you own or rent your house ?
Own (1) rent (2) Joint property (3)Hikr (4)
If (2) ask question 32 if not ask 23.
- 23- Do you rent apartments or rooms in your house?
No (0) Yes () real number
If Yes ask 24. if no ask 25.
- 24- Average rent of the rented unit. (real number)
- 25- Have you built or inherited or bought the house you are living in ?
Built (1) Inherited (2) Bought (3)
If (1) ask 26. if others ask 35.
- 26- Have you built your house in one time or in several stages ?
in one stage (1) several stages (2)
- 27- Who built your house ?
contractor (1) bricklayer(2) my children and myself (3)
- 28- When have you built it ? date
- 29- Could you tell me how much you have paid for it?
(real number in pounds)
- 30- Did you have the money, or did you borrow it ?
had the money(1) borrowed it (2) both (3)
If (2) or (3) ask 31, if (1) ask 35.

31- From whom did you borrow the money ?

Bank (1) Gameya* (2) Relatives (3) Friends (4)

32- What is the monthly rent of your house ?

(real number of pounds)

33- Do you consider that this rent is high ?

Yes (1) No (2)

If (1) ask 34. if not ask 35.

34- What would be a suitable rent for you ?

(real number of pounds)

35- What are the materials used in building your house?

mud bricks (1) mud and red bricks (2)

red bricks (3) stones (4)

broken pipes (5) reinforcement concrete (6)

36- Roofing system

Palm branches (1) reed (2) tin (3)

Joint boards and reed (4)

Joint and pertinand board (5)

Joint boards and Asbestos (6)

reinforcement concret (7)

37- Floor system

mud (1) cement (2) Tiles (3) Framed (4)

(*) Moving scheme organized by individuals.

- 38- Do you have a kitchen ?
 Yes (1) No (2)
- 39- Do you have a bathroom ?
 Yes (1) No (2)
- 40- Do you have a water closet? What kind ?
 No (1) cesspool (2) Trench (3)
 complete water closet (4)
If (2) or (3) ask 41. if other ask 43.
- 41- How many time per year do you flush ?
 Don't know (0) Number ^{of} times per year ()
- 42- How much do you pay for flushing every time ?
 (real number)
- 43- Do you have water system inside your home,
 or do you bring it from public taps ?
 pumps (1) public tap (2) water inside home (3)
If (2) ask 44. if others ask 45.
- 44- What is the distance between home and public
 taps ? number of meters.
- 45- Do you have electricity ?
 Yes (1) No (2)
- 46- Do you have
 radio (1) Television (2) recorder (3)
 ventilator (4) Don't have any (5)
 (center code if more than one variable)

47- Do you have

Washing machine (1) Butagaz (2) Refrigerator (3)
 Waterheater (4) Don't have any (5)

48- Do you have

a bicycle (1) motorcycle (2) vespa (3)
 car (4) Don't have any (5)
 (center code if more than one variable)

(IV) Attitudes towards Housing Conditions :

49- Are you satisfied with your housing conditions ?

Yes (1) No (2)

If (1) ask 50. if (2) ask 51.

50- What is the most important reason which makes you
 feel satisfied from your present housing conditions ?

1. It is ^a healthy house ()
2. It has all commodities ()
3. Good neighbourhood ()
4. Near my work() 5. Near the public transports(
6. Near the school....()
7. It is the family house ()
8. It is a big house..()
9. It is cheap.....()
10. Satisfied from all point of view ()
11. I own it, it is mine ()

Put the sign (X) between brackets for each reason given by the interviewee.

Now tell me, what is the most important reasons ... I shall remind you what you just have already said, and please try to order the reasons mentioned according to their importance. (the most important variable takes the code 11, the next 10 and so on).

51- What is the most important reason that makes you feel dissatisfied with your housing conditions ?
Proceed in the same way you did in the last question (50).

1. It is not healthy ()
2. Had no commodities ()
3. Bad neighbourhood ()
4. Far from work ()
5. Far from transportation ()
6. I want to be independant()

7. Far from school () 8. Very small ()
9. Expensive ()
10. I am dissatisfied with the conditions ()
11. Likely to collapse ()
12. Bad building material ()

To be asked to owners only Hadaique Helwan :

52- If the Government ^{wants} to introduce a sewage system in the area, would you be ready to participate in paying for it on credit?

Yes (1) No (2)

If (1) ask 53, if (2) ask 55.

53- What is the monthly amount you could pay?
(real number)

54- Why would you refuse such an opportunity?
(one answer only)

I have no surplus (1)

I prefer to educate my children (2)

I prefer to keep the money for my daughter's marriage (3)

There are other priorities (4)

The tenants would refuse to share the cost (5)

The building would not be able to support a sewage system (6)

The Government's execution is too slow (7)

It is the Government's responsibility (8)

55- If you have money, would you make any housing improvements?

Yes (1) No (2)

If (1) ask 56, if (2) ask 57 :

56- What will be these improvements?

add rooms (1) new roofing system (2)

paint the house (3) repair the floor (4)

repair doors and windows (5)

Construct or repair water closet (6)

Construct a fence (7)

57- If the Government wants to make the reparation you need, are you ready to pay for these reparations monthly?

ready () not ready ()

If (1) ask 58, if not ask 59

58- Can you make these reparations by yourself if you have money?

Yes (1) No (2)

59- Why will you refuse? (one answer)

Have no surplus (1)

Other priorities (2)

The Government's execution is too slow (3)

The Interests will be too high (4)

For renters (workers in factory)

60- If the Government builds in Helwan, houses for the workers, would you be willing to buy a house and pay the price in instalments according to the following rates :

one room for L.E. 6 per month

two rooms for L.E. 8 per month

three rooms for L.E. 12 per month

I agree (1) I don't agree (2)

I agree but the interest will be too high (3)

If (1), (3) ask 61, if (2) ask 68

61- How many rooms will you choose ?

(real number)

62- If you are given the choice between buying a small house, that is only one room with a small garden with all the commodities and facilities and with the possibility of building an extension in future, with three rooms in a building and same conditions in Helwan and for the same price (like the one you see in this picture) which offer would you prefer?

one room to be extend later (1)

an apartment of three rooms (2)

If (1) ask 63, if others ask 64 :

63- Why would you prefer a small house?

Because it is independant (1)

I prefer privacy for my wife (2)

Not accustomed to live in buildings (3)

I can benefit from the garden (4)

I can build as I wish (5)

64- Why do you prefer an apartment in a building?

Cleaner and more organised (1)

I have many children and prefer 3 rooms(2)

The building is safer (3)

I will not be able to build the extension(4)

The maintenance of a flat is cheaper (5)

65- In general would you like to be housed in an area assigned for labourers with all the services needed?

Yes (1)

No (2)

If (1) ask 66, if (2) ask 67

66- Why would you prefer to live with other workers?

Companionship (1) Same interests (2)

The factory might give us better services if we are grouped together(3)

67- Why would you refuse to live with other workers?

I dont like to be housed with my colleagues (1)

I dont like my colleagues to interfere in my life (2)

We are not in good terms (3)

68- Why don't you agree ?

I don't like to move to Helwan (1)

We are accustomed to this neighbourhood (2)

Children are accustomed to their school here (3)

All my interests are here (4)

My relatives and friends live here (5)

It's the neighbourhood of my childhood (6)

My housing conditions are good (7)

My house is very cheap (8)

I don't like to be housed with other workers (9)

Attitudes of the householders towards the services available in the housing area :

69- What are the services available in your neighbourhood?

available (1) lacking (2)

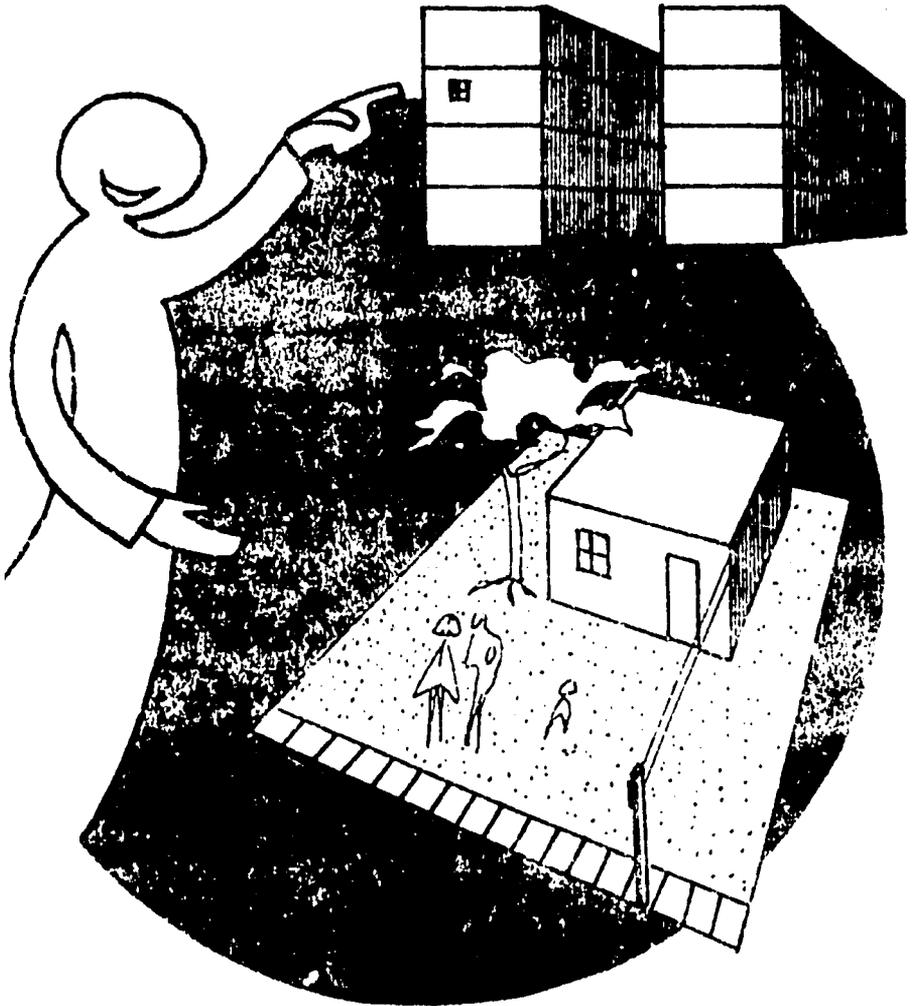
not available (3) don't know (4)

1. Schools
2. Public areas
3. Health units
4. Youth clubs
5. Consumption cooperative
6. Shops
7. Maternal and child centers
(welfare association)
8. Transportation
9. Infrastructure

70- Could you tell me your monthly expenditure on:

1. Food
2. Electricity
3. Cloth
4. School
5. Transportation
6. Children's pocket money
7. House requisites (soap, gaz, oil, etc...)
8. Medecine
9. Entertainment
10. Rent of the house
11. Cigarettes and others.

WOULD YOU PREFER



IF YOU HAVE THE CHOICE TO BUY A CORE HOUSE WHICH IS ONLY ONE ROOM WITH A SMALL GARDEN WHICH CAN BE EXTENDED IN THE FUTURE (OR) TO BUY AN APARTMENT WHICH IS ONLY ONE ROOM FOR THE SAME CONDITIONS

ANNEXE II

a- Distribution of Householders according to
their age

Age	Workers		Householders in H.H		Total	
	N	%	N	%	N	%
-20 years			1	0.33	1	0.14
20-	9	2.24	3	1.00	12	1.71
25-	80	19.95	17	5.67	98	13.98
30-	152	38.15	45	15.00	197	28.25
35-	77	19.20	57	19.00	134	19.12
40-	51	12.72	49	16.33	100	14.27
45-	23	5.74	51	17.00	74	10.56
+50	8	2.00	77	25.67	85	12.13
Total	400	100	300	100	700	100

b. Distribution of Householders according to
their marital status

marital status	Workers		Householders in n.H		Total	
	N	%	N	%	N	%
Single	43	10.72	3	1	46	6.56
Married with one spouse	348	87.03	287	94.67	632	90.20
Married with two	6	1.50	5	1.67	11	1.57
Divorced	2	0.50	8	2.67	9	1.28
Widow	1	0.25	8	2.67	9	1.28
Total	400	100	300	100	700	100

**C. distribution of Householders according to
their education level**

Education Level	Workers		Householders in H.H.		Total	
	N	%	N	%	N	%
Illiterate	11	2.74	89	29.67	100.	14.2
Read and Write	80	19.95	92	30.67	172	24.54
Primary education	53	13.22	36	12.00	89	12.70
Preparatory	37	9.23	21	7.00	58	8.27
Secondary	172	34.14	40	13.33	212	30.33
Intermediate	38	9.48	10	3.33	48	6.85
University	9	2.24	12	4.00	21	3.00
Total	400	100	300	100	700	10

**D-Distribution of Householders according to
their present occupation**

Present occupation	Workers		Householders in H.h		Total	
	N	%	N	%	N	%
Skilled labourer	334	83.54	128	42.67	462	66.05
Unskilled labourer	28	6.98	51	17.00	79	11.27
Employee	31	7.73	55	18.33	86	12.27
Military			11	3.67	11	1.57
Tradesman			10	3.33	10	1.43
Self Employed			7	2.33	7	1.00
Cultivator			8	2.68	8	1.14
Service labourer	3	0.75	6	3.00	9	1.28
Total	400	100	300	100	700	100

E- Distribution of Householders according to
years spent in present job

Years spent in present job	Worker		Householders in H.H		Total	
	M	%	N	%	N	%
-5 years	22	5.49	24	8.00	46	6.56
5-	72	17.96	35	11.67	107	15.26
10-	137	34.41	49	16.33	186	26.68
15-	150	37.41	105	35.00	255	36.38
20	19	4.74	87	29.00	106	15.12
Total	400	100	300	100	700	100

F- Distribution of Householders according to
distance between home and work

Distance between home and work	Workers		Householders in H.H		Total	
	N	%	N	%	N	%
-10 km	54	13.47	204	68.00	258	36.80
10-	43	10.72	52	17.33	95	13.55
20-	136	34.16	23	7.67	159	22.82
30-	115	28.68	11	3.67	126	17.97
40-	33	8.23	6	3.00	39	5.63
+ 50	19	4.74	4	1.33	23	3.28
Total	400	100	300	100	700	100

**3- Distribution of Householders(workers)
according to their place of residence**

Place of residence	Workers	
	N	%
South Cairo	181	45.23
Center	27	6.76
East Cairo	60	15.00
North Cairo	52	13.00
Guizeh	73	18.25
Greater Cairo	7	1.76
Hadaiq Helwan		
Total	400	100

H- Distribution of Householders according to
means of transportation to work

Means of transportation	Workers		Householders in H.H		Total	
	N	%	N	%	N	%
On foot	9	2.24	72	24.00	81	11.55
Public transportation	247	61.85	108	36.00	355	50.78
Company bus	76	18.95	41	13.97	117	16.69
Bicycle	3	0.75	26	8.67	29	4.05
More than one mean	65	16.21	28	9.34	92	13.13
Total	400	100	300	100	700	100

1-Distribution of Householders according to
the type of family

Type of family	Workers		Householders		Total	
	N	%	N	%	N	%
Nuclear family	366	91.52	271	90.33	637	91.01
Extended family	9	2.24	21	7.00	30	4.28
Joint family	21	5.24	6	2.00	27	3.86
not known	4	1.00	2	0.67	6	0.85
Total	400	100	300	100	700	100

**2- Distribution of Householders according to
number of joint families living in the
village**

Number of joint families living with householders	Workers		Householders in H.H		Total	
	N	%	N	%	N	%
One	5	23.81	1	16.67	6	22.22
Two	14	66.67	3	50.00	17	62.96
Three	2	9.52	1	16.67	3	11.11
Four	-	-	1	16.67	1	3.71
Total	21	100	6	100	27	100
Not applicable	379		294			
Total	400		300		700	

**J-Distribution of Householders according to
the relation between joint families**

Relation between Joint families	Workers		Householders IN H.H		Total	
	N	%	N	%	N	%
Relative	17	80.95	6	100	23	85.19
Stranger	4	19.05	-	-	4	14.81
Total	21	100	6	100	27	100
Not applicable	379		294		674	
G. Total	400		300		700	

4. Distribution of householders according to
number of persons per family

Number of persons per family	Workers		Householders in H.H		Total	
	N	%	N	%	N	%
1	4	1.00	-	-	4	0.57
2	56	13.97	17	5.67	73	10.41
3	50	12.47	29	9.67	79	11.27
4	84	21.20	43	14.33	127	18.26
5	74	18.45	44	14.67	118	16.83
6	47	11.72	46	15.33	93	13.27
7	37	9.23	49	16.33	86	12.27
8	14	3.49	34	11.33	48	6.85
9	12	2.99	21	7.00	33	4.71
+ 10	22	8.49	17	5.67	39	5.56
Total	400	100	300	100	700	100

**5. Distribution of Householders according to
the number of children / House**

Number of children	Workers		Householders in H.H.		Total	
	N	%	N	%	N	%
Dont have children	110	27.05	33	11.00	143	8.04
1	62	15.05	32	10.67	94	5.29
2	108	27.00	46	15.33	154	8.66
3	51	12.25	46	15.33	97	5.46
4	36	9.00	53	17.67	89	5.01
5	14	3.05	41	13.67	55	3.09
6	10	2.05	26	8.67	36	2.02
7	8	2.00	12	4.00	20	1.12
+8	1	0.25	11	3.67	12	0.67
Total	771	100	1007	100	1778	100

**C. Distribution of Wives according to
their Age**

Age	Worker's Wives		Householder's wives in H.H.		Total	
	N	%	N	%	N	%
-20	11	3.07	7	2.39	18	2.76
20-	89	24.86	22	7.51	111	17.05
25-	131	36.59	60	20.48	191	29.34
30-	73	20.39	63	21.50	136	20.89
35-	33	9.22	51	17.41	84	12.50
40-	11	3.07	46	15.70	57	8.76
45-	8	2.23	19	6.48	27	4.15
+ 50	2	0.56	25	8.53	27	4.15
Total	358	100	293	100	651	100

7-Distribution of Wives according to their
education level

Education level	Worker's wives		Householder's wives in H.H.		Total	
	N	%	N	%	N	%
Illiterate	114	31.84	180	61.43	294	45.16
Read and Write	74	20.67	33	11.26	107	16.44
Primary	32	8.94	13	4.44	45	6.91
Preparatory	42	11.73	11	3.75	53	8.14
Secondary	58	16.20	21	7.17	79	12.14
Intermediate	18	5.03	6	2.05	24	3.62
University	9	2.51	1	0.34	10	1.54
N/K	11	3.07	28	9.56	39	5.99
Total	358	100	293	100	651	

9 - Distribution of Wives according to
their occupation

occupation of wives	Worker's wives		Householder's wives in H.H.		Total	
	N	%	N	%	N	%
Don't work	293	81.85	264	90.11	557	85.57
unskilled worker	4	1.12	-	-	4	0.61
Skilled worker	4	1.12	1	0.34	5	0.77
Artisan	4	1.12	2	0.68	6	0.92
Self employed	2	0.55	-	-	2	0.31
Employee	49	13.69	21	7.17	70	10.75
Tradeswoman	2	0.55	1	0.34	3	0.46
N/K	-	-	4	1.36	4	0.61
Total	358	100	293	100	651	100

9_ Distribution of Children according to
sex

Children according to sex	Workers		Householders in H.H		Total	
	N	%	N	%	N	%
Male	412	53.44	547	54.38	959	53.94
female	359	46.56	460	45.68	819	46.06
Total	771	100	1007	100	1778	100

40. Distribution of Children according to
age

Age of children	Workers		Householders in H.M		Total	
	N	%	N	%	N	%
- 5 years	333	43.19	236	33.37	569	32.00
5 -	230	29.83	269	26.71	499	28.07
10 -	136	17.64	261	25.92	397	22.33
15 -	51	6.61	148	14.70	199	11.19
+20	21	2.72	93	9.24	114	6.41
Total	771	100	1007	100	1778	100

4- Distribution of Children according to
their education level

Education Level	Worker's Children		Householder's children in H.H.		Total	
	N	%	N	%	N	%
Illiterate	20	2.59	79	7.85	99	5.57
Read and Write	140	18.16	290	28.80	430	24.18
Primary	111	14.40	118	11.72	229	12.88
Preparatory	58	7.52	106	10.53	164	9.22
Secondary	20	2.59	61	6.06	81	4.56
Intermediate	1	0.13	9	0.89	10	0.56
University	7	0.91	18	1.79	25	1.41
Under age	414	53.70	326	32.38	740	41.62
Total	771	100	1007	100	1778	

12- Distribution of Children according to
their occupation

Occupation	Workers		Householders in H.H		Total	
	N	%	N	%	N	%
Cultivator	2	0.26	1	0.10	3	0.17
Unskilled labor	4	0.52	9	0.89	13	0.73
Skilled labor	6	0.78	29	2.88	35	1.97
Artisan	5	0.65	10	0.99	15	0.84
Employee	1	0.13	8	0.79	9	0.51
Self employed tradesman	1	0.13	10	0.99	11	0.62
Military	5	0.65	22	2.13	27	1.52
Unemployed	86	11.15	133	13.21	219	12.32
Total	110	14.26	222	22.04	332	18.73
Students	285	36.96	482	47.86	767	43.14
Under six	376	48.77	303	30.09	679	38.19
G. Total	771	100	1007	100	1778	100

43- Distribution of Householders according to
their monthly income (L.E)

Monthly income	Workers		Householders in H.H		Total	
	N	%	N	%	N	%
LE 10-	3	0.75	31	10.33	34	4.85
20-	58	14.46	63	21.00	121	17.26
30-	134	33.67	72	24.00	206	29.53
40-	107	26.68	53	17.67	160	22.82
50-	57	14.21	29	9.67	86	12.27
60-	19	4.74	14	4.67	33	4.71
+ 70	22	5.49	38	12.67	60	8.55
Total	400	100	300	100	700	100

14-Distribution of Wives according to
their income

Income of wives	Worker's wives		Householder's wives in H.H.		Total	
	N	%	N	%	N	%
Dont have any income	293	81.85	264	90.11	557	85.57
-10	1	0.28	2	0.68	3	0.46
10-	28	7.81	6	2.05	34	5.22
20-	22	6.15	11	3.75	33	5.07
30-	12	3.35	8	2.73	20	3.06
+40	-	-	2	0.68	2	0.31
Not known	2	0.56	-	-	2	0.31
Total	358	100	293	100	651	100

15- Distribution of Children according to
their income from work

(L.E.)

Income from work	Worker's		Householders in H.H		Total	
	N	%	N	%	N	%
Don't work	742	96.23	915	90.86	1657	93.20
-10	7	0.91	16	1.59	23	1.29
10-	9	1.17	34	3.38	43	2.42
20-	2	0.26	11	1.09	13	0.73
+30	-	-	31	3.08	31	1.74
N/K	11	1.43	-	-	11	0.62
Total	771	100	1007	100	1778	100

**16-Distribution of Householders according to
Total Income (L.E)**

Total income	Workers		Householders in H.H.		Total	
	N	%	N	%	N	%
10 L.E.-	2	0.50	21	7.00	23	3.28
20 -	44	10.97	56	18.67	100	14.27
30 -	105	26.43	59	19.67	164	23.54
40 -	77	19.20	48	16.00	125	17.83
50 -	65	16.21	32	10.67	97	13.84
60 -	42	10.47	18	6.00	60	8.56
70 -	23	5.74	24	8.00	47	6.70
80 -	18	4.49	10	3.33	28	3.99
90 .	4	1.00	10	3.33	14	2.00
+ 100	20	4.99	22	7.33	42	5.99
Total	400	100	300	100	700	100

**17-Distribution of Householders according to
per/ capita Income (L.E.)**

Per/capita Income	Workers		Householders in H.H		Total	
	N	%	N	%	N	%
L.E. -5	16	3.99	64	21.31	80	11.41
5-	156	39.15	124	41.33	280	40.09
10-	104	25.94	59	17.67	163	23.25
15-	57	14.21	26	8.67	83	11.84
20-	30	7.48	11	3.67	41	5.85
25-	16	3.99	8	2.67	24	3.42
+ 30'	21	5.24	8	2.67	29	4.14
Total	400	100	300	100	700	100

18-Distribution of Householders according to
the ownership of consumer durable

Ownership of consumer durable	Workers		Householders in H.H.		Total	
	N	%	N	%	N	%
Radio	354	88.50	258	86.00	612	87.43
Television	283	70.75	155	51.67	438	82.57
Recorder	128	32.00	49	16.33	177	25.29
Ventilator	41	10.25	18	6.00	59	8.43
Washing Machine	154	38.50	57	19.00	211	30.14
Butagaz	268	67.00	125	41.67	393	56.74
Refrigerator	130	32.50	46	15.33	176	25.74
Waterheater	3	0.75	13	4.33	16	2.29
Bicycle	48	12.00	49	16.33	97	13.86
Motorcycle	2	0.50	2	0.67	4	0.57
Vespa	2	0.50	2	0.67	4	0.57
Car	5	1.25	4	1.33	9	1.29
Total	400	100	300	100	700	100

(1) Distribution of Householders according to their month-ly expenditure on food (L.E.)

Expenditure on food	Workers		Householders in H.H		Total	
	N	%	N	%	N	%
LE - 10	12	2.99	8	2.67	20	2.85
10 -	102	25.68	92	30.67	195	27.82
20 -	162	40.40	96	32.00	258	36.80
30 -	72	17.96	61	20.33	133	18.97
40 -	33	8.23	27	9.00	60	8.57
+50	19	4.74	16	5.33	35	4.99
Total	400	100	300	100	700	100

**20- Distribution of Householders according to
their monthly expenditure on house
requisites**

Monthly expenditure on house requisites (L.E.)	Workers		Householders in H.H.		Total	
	N	%	N	%	N	%
1-	62	15.46	28	9.33	90	12.84
3-	137	34.41	71	23.67	208	29.81
5-	117	29.18	90	30.00	207	29.53
7-	32	7.98	45	15.00	77	10.98
+9+	33	8.23	64	21.33	97	13.84
Nothing	19	4.74	2	0.67	21	2.99
Total	400	100	300	100	700	100

21- Distribution of Householders according to their
monthly expenditure on transportation

L.E.

Expenditure on TRANSPORTATION	Workers		Householders in H.H.		Total	
	N	%	N	%	N	%
1 -	65	16.22	54	18.00	119	16.98
2 -	91	22.95	31	10.33	122	17.55
3 -	60	14.96	38	12.67	98	13.98
4 -	82	20.46	10	3.33	92	13.12
5 -	23	5.74	11	3.67	34	4.85
+ 6	26	5.75	17	5.67	43	6.13
N. Known	53	13.22	139	46.33	162	27.39
Total	400	100	300	100	700	100

Distribution of Householders according to
their monthly expenditure on
cloth (L.E.)

Expenditure on Cloth	Workers		Householders in H.H.		Total	
	N	%	N	%	N	%
1-	65	16.21	55	18.33	120	17.12
3-	130	32.66	90	30.00	220	31.53
5-	114	28.43	87	29.00	201	28.67
7-	38	9.48	31	10.33	69	9.84
9-	40	9.98	32	10.67	72	10.27
not known	13	3.24	5	1.67	18	2.57
Total	400	100	300	100	700	100

11. Distribution of Householders according to
their monthly expenditure on school

(L.E)

Expenditure on school	Workers		Householders in H.H		Total	
	N	%	N	%	N	%
1 -	19	4.74	36	12.00	55	7.85
2 -	38	9.48	32	10.66	70	9.99
3 -	25	6.23	18	6.00	43	6.13
4 -	18	4.49	20	6.67	38	5.42
5 -	25	6.83	24	8.00	49	6.99
6 -	16	3.99	6	2.00	22	3.14
+ 7	19	4.74	29	9.67	48	6.85
nothing	240	60.10	135	45.00	375	53.63
Total	400	100	300	100	700	100

24. Distribution of Householders according to
 their monthly expenditure on children's pocket
 money

Expenditure on Children	Workers		Householders in H.H		Total	
	N	%	N	%	N	%
Nothing	165	41.65	74	24.67	240	34.37
1 -	82	20.45	81	27.00	163	23.25
3 -	82	20.45	67	22.33	149	21.26
5 -	44	10.97	52	17.34	196	13.71
7 -	10	2.49	7	2.33	17	2.43
+ 9	16	3.99	19	6.33	35	4.99
Total	400	100	300	100	700	100

25- Distribution of Householders according to their monthly
expenditure on electricity

Expenditure on Electricity	Workers		Householders in H.H		Total	
	N	%	N	%	N	%
L.E. 1-	168	42.14	154	15.33	322	46.08
2-	137	34.17	87	29.01	224	31.95
3-	34	8.48	19	6.33	53	7.56
4-	7	1.75	3	1.00	10	1.43
+ 5	10	2.49	3	1.00	13	1.85
N/A	44	10.97	34	11.33	78	11.33
Total	400	100	300	100	700	100

**16. Distribution of Householders according to
their monthly rent of the house**

Monthly rent of the house (L.E.)	Workers		Householders in H.H.		Total	
	N	%	N	%	N	%
1-	28	6.98	2	0.67	30	4.28
3-	82	20.45	9	3.00	91	12.98
5-	121	30.42	18	6.00	139	19.97
7-	70	17.46	16	5.33	86	12.27
+9	47	11.72	12	4.00	59	8.42
Nothing	52	12.97	243	81.00	295	42.08
Total	400	100	300	100	700	100

**27. Distribution of Householders according to
their monthly expenditure on
entertainment**

Monthly expenditure on entertainment (L.E.)	Workers		Householders in H.H		Total	
	N	%	N	%	N	%
1-	73	18.20	30	10.00	103	14.69
3-	40	9.98	12	4.00	52	7.42
5	34	8.48	13	4.33	47	6.70
Nothing	253	63.34	245	81.67	498	71.19
Total	400	100	300	100	700	100

28- Distribution of householders according to
their monthly expenditure on medicine

Monthly expenditure on medicine (L.E.)	Workers		Householders in H.H		Total	
	N	%	N	%	N	%
1-	135	33.92	118	39.33	253	36.23
3-	82	20.45	41	13.67	123	17.55
5-	55	13.72	36	12.00	91	12.98
7-	12	2.99	10	3.33	22	3.14
+ 9	17	4.24	17	5.67	34	4.85
Nothing	99	24.69	78	26.00	177	25.25
Total	400	100	300	100	700	100

**29-Distribution of Householders according to
their monthly expenditure on cigarettes
and others**

Monthly expenditure on cigarettes and (L.E.) others	Workers		Householders in H.H		Total	
	N	%	N	%	N	%
1-	12	2.99	8	2.67	20	2.85
3-	52	12.97	54	18.00	106	15.12
5-	60	14.96	40	13.33	100	14.27
7-	37	9.23	35	11.67	72	10.27
+9	50	12.47	40	13.33	90	12.84
Nothing	189	47.38	123	41.00	312	44.65
Total	400	100	300	100	700	100

Table 30- Relation between total family income and their monthly expenditure on food

Monthly expenditure Total income	Less than 10 L.E	10 -	20 -	30 -	40 -	+50	Total
10-	10	13	-	-	-	-	23
20-	3	73	24	-	-	-	100
30-	6	65	77	16	-	-	164
40-	-	20	77	24	4	-	125
50-	-	14	37	31	10	5	97
60-	1	8	20	19	8	4	60
70-	-	1	13	11	15	7	47
80-	-	-	7	14	4	3	28
90-	-	1	1	5	3	4	14
+100	--	-	2	13	15	12	42
Total	20	195	258	133	59	35	700

$r = 0.69$ which is significant beyond 0.001

table 30- Relation between total family income and monthly expenditure on house requisites

Monthly expenditure	1-	3-	5-	7-	+9	No-thing	Total
Total income							
10-	8	7	4	2	1	1	23
20-	18	43	24	5	7	3	100
30-	33	49	46	16	16	4	164
40-	14	46	38	16	8	3	125
50-	8	29	34	14	10	2	97
60-	6	17	18	5	12	2	60
70-	1	9	19	9	9	-	47
80-	2	4	7	5	8	2	28
90-	-	1	4	2	6	1	14
+100	-	4	13	3	20	2	42
Total	90	209	207	77	97	20	700

$r = 0.32$ which is significant beyond 0.001

Table 30¹ Relation between total family income and monthly expenditure on clothes

Monthly expenditure Total income	1-	3-	5-	7-	+9	No-thing	Total
	10-	9	10	1	-	-	3
20-	37	38	15	6	2	2	100
30-	39	58	44	12	9	2	164
40-	20	41	41	12	7	4	125
50-	8	36	29	12	10	2	97
60-	6	16	21	8	6	3	60
70-	-	12	15	10	10	-	47
80-	1	2	10	3	12	-	28
90-	-	3	7	-	3	1	14
+100	-	5	18	6	12	1	42
Total	120	221	201	69	71	18	700

$r = 0.40$ which is significant beyond 0.001

Table 30¹ Relation between total family income and monthly expenditure on school

Monthly expenditure Total income	1-	3-	5-	+7	No-thing	Total
10-	4	1	1	-	17	23
20-	17	9	4	1	69	100
30-	32	21	8	3	100	164
40-	28	18	12	4	63	125
50-	20	13	14	5	45	97
60-	9	7	10	7	27	60
70-	6	3	9	11	18	47
80-	2	4	7	1	14	28
90-	5	1	1	3	4	14
+100	2	4	5	13	18	42
Total	125	81	71	48	375	700

$r = 0.31$ which is significant beyond 0.001 .

Table 30^A Relation between total family income and monthly expenditure on children pocket money

Monthly expenditure Total income	1-	3-	5-	7-	†9	No-thing	Total
10-	9	2	1	-	-	11	23
20-	27	25	4	-	-	44	100
30-	43	36	12	3	5	65	164
40-	39	28	15	4	2	37	125
50-	19	20	17	7	2	32	97
60-	10	10	13	1	2	24	60
70-	8	11	13	1	6	8	47
80-	2	9	5	1	4	7	28
90-	5	1	7	-	1	-	14
†100	1	7	9	-	13	12	42
Total	163	149	96	17	35	240	700

0.33 which is significant beyond 0.001 .

Table 30⁵ Relation between total family income
and monthly expenditure on electricity

Monthly expenditure Total income	1-	3-	+5	N./A.	Total
10 -	9	-	-	14	23
20 -	71	3	2	24	100
30 -	141	4	2	17	164
40 -	111	7	-	7	125
50 -	77	11	2	7	97
60 -	52	3	2	3	60
70 -	31	13	2	1	47
80 -	19	8	-	1	28
90 -	8	3	1	1	14
+100	28	11	2	2	42
Total	547	63	13	77	700

$r = 0.34$ which is significant beyond 0.001

Table 30-⁶ Relation between total family income and monthly rent of the houses

Monthly rent Total income	1-	3-	5-	7-	+9	No-thing	Total
10-	1	2	-	-	-	20	23
20-	4	21	10	5	2	58	100
30-	9	26	33	15	11	70	164
40-	6	16	30	16	10	47	125
50-	2	11	31	15	8	30	97
60-	5	1	14	14	8	18	60
70-	2	6	8	6	6	19	47
80-	1	4	6	9	3	5	28
90-	-	1	1	2	1	9	14
+100	-	3	7	4	10	18	42
Total	30	91	140	86	59	294	700

$r = 0.21$ which is significant beyond 0.01 .

Table 30² Relation between total income and monthly expenditure on entertainment

Monthly expenditure Total income	1-	3-	+5-	No-thing	Total
10 -	1	-	-	22	23
20 -	11	2	3	84	100
30 -	21	12	8	123	164
40 -	23	11	2	89	125
50 -	20	4	5	68	97
60 -	11	7	5	37	60
70 -	6	4	6	31	47
80 -	4	6	7	11	28
90 -	3	1	1	9	14
+100	3	5	10	24	42
Total	103	52	47	498	700

$r = 0.26$ which is significant beyond 0.01

Table 30² Relation between total family income and monthly expenditure on medicine

Monthly expenditure	1-	3-	5-	7-	+9"	No-thing	Total
Total income							
10-	9	3	1	-	-	10	23
20-	43	12	7	2	1	35	100
30-	63	26	15	6	4	50	164
40-	54	24	15	3	6	23	125
50-	39	23	11	3	2	19	97
60-	20	11	8	2	5	14	60
70-	10	9	10	3	7	8	47
80-	7	6	7	2	1	5	28
90-	4	1	3	-	1	5	14
+100	5	8	14	1	7	7	42
Total	254	123	91	22	34	176	700

$r = 0.28$ which is significant beyond 0.001.

Table 31- Relation between total family income and monthly expenditure on transportations

Monthly expenditure	1-	3-	+5-	No-thing	Total
Total income					
10 -	9	5	-	9	23
20 -	38	20	6	36	100
30 -	62	49	10	43	164
40 -	56	31	7	31	125
50 -	30	44	13	10	97
60 -	20	17	7	26	60
70 -	11	14	9	13	47
80 -	7	7	8	6	28
90 -	2	2	2	8	14
+100-	7	1	15	9	42
Total	242	190	77	191	700

$r = 0.12$ which is ^{n.t.} significant

Table 32- Relation between total family income and monthly expenditure on cigarettes

Monthly expenditure Total income	1-	3-	5-	7-	+9	No-thing	Total
10-	-	9	1	4	-	9	23
20-	6	22	16	6	6	44	100
30-	2	24	28	13	16	81	164
40-	6	17	17	19	16	50	125
50-	3	16	20	6	11	41	97
60-	-	9	10	7	12	22	60
70-	2	3	5	5	4	28	47
80-	-	2	-	4	8	14	28
90-	-	1	1	1	5	6	14
+ 100-	1	3	2	7	12	17	42
Total	20	106	100	72	90	312	700

33-Distribution of Housholders according to
number of floor

Number of floor	Workers		Householders in H.H		Total	
	N	%	N	%	N	%
1	47	11.72	164	54.67	211	30.10
2	93	23.19	94	31.33	187	26.68
3	98	26.69	22	7.33	120	17.26
4	82	20.45	12	4.00	94	13.41
5	59	14.71	7	2.33	66	9.42
+6	21	5.24	1	0.33	22	3.14
Total	400	100	300	100	700	100

34- Distribution of Householders according to
the building material of their house

Building material	Workers		Householders in H.H		Total	
	N	%	N	%	N	%
Mudbrick	18	4.49	33	11.00	51	7.27
Mud and redbricks	15	3.74	18	6.00	33	4.71
Red bricks	132	33.17	144	48.00	276	39.51
Stone	46	11.47	17	5.67	63	8.99
Red Brick and stone	10	2.49	8	2.67	18	2.57
Red brick and concrete	88	20.95	48	15.99	136	19.39
Concrete	90	22.69	32	10.67	123	17.54
Total	400	100	300	100	700	100

35- Distribution of Householders according to
their roofing system

Roofing system	Workers		Householders in H.H		Total	
	N	%	N	%	N	%
Tin			2	0.67	2	0.25
Palm branches and reed	5	1.25	6	2.00	11	1.57
Joint board and asbestos	9	2.24	19	6.33	28	4.00
Joint board and reed	12	2.99	19	6.33	31	4.44
Joint and pertinand board	84	20.95	21	7.00	105	14.98
Concrete	290	72.32	233	77.67	523	74.62
Total	400	100	300	100	700	100

36- Distribution of Household^s according to
their floor system

Floor system	Workers		Householders in H.H		Total	
	N	%	N	%	N	%
Mud	25	6.23	40	13.33	65	9.27
Cement	15	3.74	104	34.67	119	16.98
Tiles	336	84.04	138	46.00	474	67.76
Tile & cement	5	1.25	17	5.67	22	3.14
Tile & framed	17	4.24	1	0.33	18	2.57
Frqmed	2	0.50	-	-	2	0.28
Total	400	100	300	100	700	100

37 Distribution of Householders according to
type of tenure

type of tenure	Workers		Householders in H.H		Total	
	N	%	N	%	N	%
Owner	37	9.23	201	67.00	238	33.95
Renter	348	87.03	57	19.00	405	57.92
Joint property	15	3.74	23	7.67	38	5.42
Hikr			19	6.33	19	2.71
Total	400	100	300	100	700	100

38. Distribution of Householders according to
the monthly rent of the house
(L. E.)

Monthly rent of the house (L.E)	Workers		Householders in H.H		Total	
	N	%	N	%	N	%
1 -	26	7.45	2	3.51	28	6.70
3 -	80	22.92	8	14.04	88	21.67
5 -	120	34.38	20	35.09	140	34.48
7 -	74	21.21	15	26.31	89	21.63
+ 9	48	14.04	12	21.05	60	15.52
Total	348	100	57	100	405	100
N.A.	52		243		295	
G.T.	400		300		700	

38- Distribution of Householders according to
considering their rent high

If they considered their rent high	Workers		Householders in H.H		Total	
	N	%	N	%	N	%
1- suitable	233	67.05	45	78.95	278	68.72
2- high	115	32.95	12	21.05	127	31.28
Total	348	100	57	100	405	100
N/A	52		243		295	
G.T.	400		300		700	

39. Distribution of Householders according to
their opinion of what will be a suitable rent

Suitable rent	Workers		Householders in H.H		Total	
	N	%	N	%	N	%
1 -	14	12.17	1	8.33	15	11.81
3 -	43	37.39	6	50.00	49	38.58
5 -	44	39.13	3	25.00	47	37.80
+ 7	13	11.32	2	16.67	15	11.81
Total	114	100	12	100	126	100
N/A	286		288		574	
G.T.	400		300		700	

40- Distribution of Householders according to
number of rooms in their house

Number of rooms	Workers		Householders in H.H		Total	
	N	%	N	%	N	%
1	53	13.22	26	8.67	79	11.27
2	135	33.67	76	25.33	210	30.10
3	135	33.91	123	41.00	259	36.95
4	66	16.46	51	17.00	117	16.69
+5	11	2.24	24	8.00	35	4.99
Total	400	100	300	100	700	100

4^d-Distribution of Householders according to
crowding rate (person / room)

Crowding rate	Workers		Householders in H.H		Total	
	N	%	N	%	N	%
Less than one per room	38	9.48	17	5.67	55	7.85
1/room	160	40.15	153	51.00	313	44.79
2/room	113	28.18	89	29.67	202	28.82
3/room	47	11.72	4	1.33	51	7.28
4/room	20	4.99	21	7.00	41	5.79
5/room	13	3.24	8	2.67	21	2.96
6/room +	9	2.24	8	2.67	17	2.42
Total	400	100	300	100	700	100

**42-Distribution of Householders according to
number of rooms needed**

Number of rooms needed	Workers		Householders in H.H		Total	
	N	%	N	%	N	%
1	4	1.00	1	0.33	5	0.71
2	37	9.23	26	8.67	63	8.99
3	255	63.84	128	42.67	383	54.79
4	102	25.44	97	32.33	199	28.39
5+	2	0.50	48	16.00	50	7.13
Total	400	100	300	100	700	100

43- Distribution of Householders according to
having a water system inside
the house

Sources of water	Workers		Householders in H.H		Total	
	N	%	N	%	N	%
Pumps	8	2.00	2	0.33	10	1.43
Water inside home	326	81.55	199	66.67	525	75.04
Public tap	66	16.45	99	33.00	165	23.53
Total	400	100	300	100	799	100

44- Distribution of Householders according to
the distance between home and water taps (m)

Distance home/ water tap	Workers		Householders in H.H		Total	
	N	%	N	%	N	%
- 100 m	18	27.27	21	21.22	39	25.16
100 -	14	21.21	19	19.19	33	21.29
200 -	11	16.66	19	19.19	30	19.35
300 -	7	10.61	9	9.09	16	10.32
400 -	11	16.67	17	17.17	28	18.06
+ 600	5	7.58	4	4.04	9	5.82
Total	66	100	89	100	155	100
N/A	334		211		545	
Total	400		300		700	

45- Distribution of Householders according to
the existence of electricity in their House

Electricity	Workers		Householders in H.H.		Total	
	N	%	N	%	N	%
Yes	373	93.27	269	89.67	642	91.73
No	27	6.73	31	10.33	58	8.27
Total	400	100	300	100	700	100

46- Distribution of Householders according to
Having a Bathroom

If Having a Bath	Workers		Householders in H.H.		Total	
	N	%	N	%	N	%
Have	266	66.58	132	44.00	398	56.92
Dont have	134	33.42	168	56.00	302	43.08
Total	400	100	300	100	700	100

47- Distribution of Householders according to
kind of water closet

Kind of water closet	Workers		Householders in H.H		Total	
	N	%	N	%	N	%
Dont have	12	2.99	9	3.01	21	3.00
Cesspool	13	3.24	25	8.33	38	5.42
Trench	79	19.71	247	82.33	326	46.50
Complete water closet	296	74.06	19	6.33	315	45.08
Total	400	100	300	100	700	100

48. Distribution of Householders according to
the number of flushing per year

Number of flushing per year	Workers		Householders in H.H		Total	
	N	%	N	%	N	%
— 1	25	26.88	62	22.79	87	23.90
2	16	17.39	31	11.41	47	12.91
3	3	3.36	9	3.31	12	3.30
4	5	5.44	3	1.10	8	2.20
5	2	2.27	8	2.94	10	2.75
6	2	2.27	3	1.10	5	1.37
Dont know	38	42.39	156	57.35	194	53.57
Total	91	100	272	100	363	100
N./A.	309		28		337	
G.T.	400		300		700	

46¹ - Distribution of Householders according to
the cost of flushing

Cost of flushing (L.E.)	Workes		Householders in H.H		Total	
	N	%	N	%	N	%
1-	27	29.35	22	8.09	49	13.46
3-	6	6.52	14	5.15	20	4.49
5-	6	6.53	23	8.46	29	7.97
7-	5	5.43	13	4.78	18	4.95
+9 ¹ .	9	9.78	44	16.27	53	15.56
Dont know	38	42.39	156	57.25	194	53.57
Total	91	100	272	100	363	100
N./A.	309		28		337	
G.T.	400		300		700	

49- Distribution of Householders according to
Having a Kitchen

If Having a Kitchen	Workers		Householders in H.H.		Total	
	N	%	N	%	N	%
Have	288	72.07	179	59.67	467	66.76
Don't Have	112	27.93	121	40.33	233	33.24
Total	400	100	300	100	700	100

50- Distribution of Householders according to
Satisfaction of their Housing Conditions

Satisfaction	Workers		Householders in H.H.		Total	
	N	%	N	%	N	%
Satisfied	107	26.68	220	73.33	327	46.65
Not Satisfied	293	73.32	80	26.67	373	53.35
Total	400	100	300	100	700	100

54 - Distribution of Householders according to the most important reason that made them satisfied of their house

Reasons of satisfaction	Workers		Householders in H.H.		Total	
	N	%	N	%	N	%
Ownership	10	9.35	157	71.36	167	51.07
Healthy	18	16.82	14	6.36	32	9.79
Near work	14	13.08	16	7.27	30	9.17
Satisfied of the house as a whole	9	8.41	12	5.45	21	6.42
Good neighborhood	14	13.08	6	2.73	20	6.12
Family house	13	12.15	6	2.73	19	5.81
Cheap	11	10.28	4	1.82	15	4.59
Big house	7	6.54	3	1.36	10	3.06
Near Public (transportation)	5	4.67	1	0.46	6	1.83
Near school	3	2.81	1	0.46	4	1.22
All commodities	3	2.81	—	—	3	0.92
Total	107	100	220	100	327	100
N/A	293		80		373	
Total	400		300		700	

51- Distribution of householders according to the most important reason that made them dissatisfied of their house

Reason of dissatisfaction	Workers		Householders in H.H.		Total	
	N	%	N	%	N	%
Small	79	26.96	28	35.00	107	28.69
Far from work	81	27.65	10	12.50	91	24.39
No facilities	33	11.96	18	22.50	51	13.67
Not healthy	37	12.62	13	16.25	50	13.41
Not independent	19	6.48	-	-	19	5.09
Likely to collapse	15	5.12	-	-	15	4.03
Dissatisfied of the house as a whole)	8	2.74	4	5.00	12	3.22
Bad materials	8	2.74	4	5.00	12	3.22
Expensive	7	2.39	-	-	7	1.88
Far from transportation)	2	0.68	3	3.75	5	1.34
Bad neighborhood	3	1.02	-	-	3	0.80
Far from school	1	0.34	-	-	1	0.26
Total	293	100	80	100	373	100
N./A.	107		220		327	
G. Total	400		300		700	

53. Distribution of Householders according to their agreement to relocate in Helwan

Buy a corehouse in Helwan	Workers	
	N	%
Agree	271	67.8
Dont agree	56	13.97
Agree but the interests will be too high)	67	16.71
Nothing	6	1.74
Total	400	100

53-Distribution of Householders according to
the reasons of refusing buying a house
in Helwan

Reasons	Workers	
	N	%
I dont like to move to Helwan	2	3.57
We are accustomed to this neigh- borhood	1	1.79
Children are accustomed to their school here	1	1.79
All my interests are here	6	10.71
My relatives and friends live here	6	10.71
It's the neigh- borhood of my childhood	3	5.36
My housing conditions are good	4	7.14
My house is very cheap	17	30.36
I dont like to be housed with other workers	16	28.57
Total	56	100
N/A	344	
G. Total	400	

Table 53- Relation between social status and the willingness to relocate in Helwan and pay instalments

Willingness of H.H. Social status of H.H.	Agree		Don't agree		Agree but the interest will be Too High		N./ A.		Total
	N	%	N	%	N	%	N	%	N
Married	234	66.10	53	14.97	60	16.95	7	1.98	354
Unmarried	35	81.40	2	4.65	6	13.95	-	-	43
Divorced	2	100	-	-	-	-	-	-	2
Widower	-	-	1	100	-	-	-	-	1
Total	271	-	56	-	66	-	7	-	400

187

$\chi^2 = 3.61$
d.o.f. = 2
not significant

Table 53³ - Relation between the Age of H.H. and Their Willingness to relocate in Helwan and pay instalments

Willingness of H.H. Age of H.H.	Agree		Don't agree		Agree but interest will be too high		N./A.		Total
	N	%	N	%	N	%	N	%	
20 -	7	77.78	1	11.11	1	11.11	-	-	9
25 -	65	81.25	4	5.00	11	13.75	-	-	80
30 -	113	73.86	16	10.46	23	15.03	1	0.65	153
35 -	43	56.58	15	19.74	15	19.74	3	3.95	76
40 -	27	52.94	10	19.61	11	21.57	3	5.88	51
45 -	12	52.17	8	34.78	3	13.04	-	-	23
≥ 50	4	50.00	2	25.00	2	25.00	-	-	8
Total	271	-	56	-	66	-	7	-	400

$$\chi^2 = 3.65$$

$$\text{d.o.f.} = 4$$

not significant

Table 53³- Relation between education level of H.H. and their willingness to relocate in Helwan and pay instalments

Willingness of H.H. Education level	Agree		Don't agree		Agree but the interest will be too high		N./A.		Total
	N	%	N	%	N	%	N	%	
Illiterate	6	54.55	3	27.27	2	18.18	-	-	11
Read and write	46	56.96	15	18.99	15	18.99	4	5.06	80
Primary	36	67.92	9	16.98	8	15.09	-	-	53
Preparatory	25	67.57	4	10.81	8	21.62	-	-	37
Secondary	124	72.09	22	12.79	23	13.37	3	1.74	172
Intermediate	27	71.05	2	5.26	9	23.68	-	-	38
University degree	7	77.78	1	11.11	1	11.11	-	-	9
Total	271	-	56	-	66	-	7	-	400

189

$$\chi^2 = 30.33$$

$$\text{d.o.f.} = 4$$

$$\text{significat} = 0.005$$

Table 53^h - Relation between job of H.H. and their willingness to relocate in Helwan and pay instalments

Willingness of H.H. Job of H.H.	Agree		Don't agree		Agree but the interest will be too high		N./A.		Total
	N	%	N	%	N	%	N	%	
Unskilled worker	18	64.28	5	17.86	5	17.86	-	-	28
Skilled worker	232	69.37	43	12.61	55	16.22	6	1.80	336
Self employed	-	-	1	50.00	1	50.00	-	-	2
Employee	19	61.29	7	22.58	4	12.90	1	3.23	31
Service labourer	2	66.67	--	-	1	33.33	-	-	3
Total	271	-	56	-	66	-	7	-	400

081

$$\chi^2 = 2.82$$

$$\text{d.o.f.} = 2$$

not significant

Table 53- Relation between the number of persons in H.H.
to relocate in Helwan and pay instalments

Willingness of H.H. Number of persons	Agree		Don't agree		Agree but the interest will be too high		N./A.		Total
	N	%	N	%	N	%	N	%	
1	4	100	-	-	-	-	-	-	4
2	46	82.14	2	3.57	7	12.50	1	1.79	56
3	32	64.00	8	16.00	10	20.00	-	-	50
4	63	73.81	10	11.90	11	13.10	1	1.19	85
5	47	63.51	12	16.22	13	17.57	2	2.70	74
6	24	51.06	7	14.89	14	29.79	2	4.26	47
7	20	52.78	10	27.78	7	19.44	-	-	37
8	12	85.71	1	7.14	1	7.14	-	-	14
9	7	58.33	3	25.00	2	16.67	-	-	12
+10	16	76.19	3	14.29	1	4.76	1	4.76	21
Total	271	-	56	-	66	-	7	-	400

494

$\chi^2 = 10.22$

d.o.f. = 5

not significant

Table 53^c Relation between the total income of H.H.'s family willingness to relocate in Helwan and pay instalments

Willingness of H.H. Total income	Agree		Don't agree		Agree but the interest will be too high		N./A.		Total
	N	%	N	%	N	%	N	%	
10 -	-	-	-	-	2	100	-	-	2
20 -	35	79.55	4	9.09	5	11.36	-	-	44
30 -	70	65.71	10	9.52	25	23.81	1	0.95	106
40 -	56	72.73	9	11.69	11	14.29	1	1.30	77
50 -	45	69.23	10	15.38	10	15.38	-	-	65
60 -	25	58.54	9	21.95	7	17.07	1	2.44	42
70 -	12	54.55	8	36.36	1	4.55	1	4.55	22
80 -	11	58.82	3	17.65	4	23.53	-	-	18
90 -	2	50.00	1	25.00	-	-	1	25.00	4
† 100	15	75.00	2	10.00	1	5.00	2	10.00	20
Total	271	-	56	-	66	-	7	-	400

$\chi^2 = 15.31$

d.o.f. = 6

Significant at 0.02

Table 53- Relation between Crowding rate in H.H. and their willingness to relocate in Helwan and pay instalments

Willingness of H.H. Crowding rate	Agree		Don't agree		Agree but the interest will be too high		N./A.		Total
	N	%	N	%	N	%	N	%	
Less than 1	24	64.86	4	10.81	7	18.92	2	5.41	37
1	109	67.30	29	18.24	20	12.58	3	1.89	161
2	77	68.14	9	7.96	26	23.01	1	0.88	113
3	28	59.57	11	23.10	8	17.02	-	-	47
4	16	80.00	1	5.00	3	15.00	-	-	20
5	11	84.62	1	7.69	-	-	1	7.69	13
+ 6	6	66.67	1	11.11	2	22.22	-	-	9
Total	271	-	56	-	66	-	7	-	400

193

$$\chi^2 = 10.78$$

$$\text{d.o.f.} = 4$$

Significant at 0.05

54 - Distribution of householders according to the number of room chosen

Number of rooms	Workers	
	N	%
1	15	4.44
2	82	24.26
3	238	70.41
4	3	0.89
Total	338	100
N./A.	62	
G. Total	400	

Number of room chosen Social status	1		2		3		4		N./A.		Total
	N	%	N	%	N	%	N	%	N	%	
Married	15	4.24	72	20.34	205	57.51	3	0.85	59	16.67	354
Unmarried	-	-	10	23.26	31	72.09	-	-	2	4.65	43
Divorced	-	-	-	-	2	100	-	-	-	-	2
Widower	-	-	-	-	-	-	-	-	1	100	1
Total	15	-	82	-	238	-	3	-	62	-	400

$\chi^2 = 0.71$
 d.o.f. = 1
 not significant

Relation between the education level and sex

number of room chosen Education level	1		2		3		4		not shown		Total
	N	%	N	%	N	%	N	%	N	%	
Illiterate	1	9.59	3	27.27	4	36.36	-	-	3	27.27	11
Read and write	7	8.86	24	30.38	32	39.24	-	-	17	21.52	80
Primary	-	-	17	32.08	26	49.06	-	-	10	18.87	53
Preparatory	3	3.11	9	24.32	21	56.76	-	-	4	10.81	37
Secondary	2	1.16	23	13.37	120	69.77	2	1.16	25	14.53	172
Intermediate	2	5.26	6	15.79	27	71.05	1	2.63	2	5.26	38
University degree	-	-	-	-	8	88.89	-	-	1	11.11	9
Total	15	-	82	-	238	-	3	-	62	-	400

$\chi^2 = 6.22$
d.o.f. = 4
not significant

Table 54³ Relation between job of householders and number of room chosen

Number of room chosen \ Job of householders	1		2		3		4		N./A.		Total
	N	%	N	%	N	%	N	%	N	%	
Unskilled worker	2	7.14	12	42.86	9	32.14	-	-	5	17.86	28
Skilled workers	11	3.27	69	20.54	205	61.01	3	0.89	48	14.29	336
Self employed	1	50.00	-	-	-	-	-	-	1	50.00	2
Employee	-	-	-	-	25	74.19	-	-	8	25.81	31
Service labourer	1	33.33	1	33.33	1	33.33	-	-	-	-	3
Total	15	-	82	-	238	-	3	-	62	-	400

102

$\chi^2 = 15.83$
d.o.f. = 2
significant at 0.005

number of room chosen

Number of room chosen Number of persons in H.H.	1		2		3		4		N./A.		Total
	N	%	N	%	N	%	N	%	N	%	
1	-	-	2	50.00	2	50.00	-	-	-	-	4
2	1	1.79	17	30.36	34	60.71	-	-	4	7.14	56
3	3	6.00	12	24.00	26	52.00	1	2.00	8	16.00	50
4	1	1.19	21	25.00	52	60.71	-	-	11	13.10	85
5	2	2.70	12	16.22	45	60.81	1	1.35	14	18.92	74
6	4	8.51	7	14.89	27	57.45	-	-	9	19.15	47
7	2	5.56	4	11.11	21	55.56	1	2.78	9	25.00	37
8	-	-	4	28.57	9	64.29	-	-	1	7.14	14
9	2	16.67	-	-	7	58.33	-	-	3	25.00	12
+ 10	-	-	3	14.29	15	71.42	-	-	3	14.29	21
Total	15	-	82	-	238	-	3	-	62	-	400

$\chi^2 = 4.72$
d.o.f. = 6
not significant

Number of room chosen Total income	1		2		3		4		N./A.		Total
	N	%	N	%	N	%	N	%	N	%	
10 -	-	-	2	100	-	-	-	-	-	-	2
20 -	4	9.09	24	54.55	13	29.55	-	-	3	6.82	44
30 -	5	4.76	27	25.71	63	59.05	-	-	11	10.48	106
40 -	3	3.90	20	25.97	43	55.84	1	1.30	10	12.99	77
50 -	2	3.08	7	10.77	46	70.77	-	-	10	15.38	65
60 -	1	2.44	1	2.44	29	68.29	1	2.44	10	24.39	42
70 -	-	-	1	4.55	12	54.55	-	-	9	40.91	22
80 -	-	-	-	-	14	76.47	1	5.88	3	17.65	18
90 -	-	-	-	-	2	50.00	-	-	2	50.00	4
+ 100	-	-	-	-	16	80.00	-	-	4	20.00	20
Total	15	-	82	-	238	-	3	-	62	-	400

$\chi^2 = 50.89$
 d.o.f. = 6
 significant at 0.005

900

Number of room chosen Crowding rate	1		2		3		4		N./A.		Total
	N	%	N	%	N	%	N	%	N	%	
Less than 1	-	-	3	8.11	27	72.97	-	-	7	18.92	37
1 -	2	4.26	22	13.84	103	63.52	1	0.63	33	20.75	161
2 -	6	5.31	26	23.01	71	62.83	-	-	10	8.85	113
3 -	4	8.51	11	23.40	21	44.68	1	2.13	10	21.28	47
4 -	2	10.00	10	50.00	7	35.00	-	-	1	5.00	20
5 -	-	-	5	38.46	7	53.85	1	7.69	-	-	13
+ 6	1	11.11	5	55.55	2	22.22	-	-	1	11.11	9
Total	18	-	82	-	238	-	3	-	62	-	400

55. Distribution of Householders according to their choice between buying a house (One room to be extend later) with a garden or a flat in a building

Their choice	Workers	
	N	%
One room to be extend later)	142	42.01
An appartement of three rooms)	196	57.99
Total	338	100
N/A	62	
G. total	400	

Table 55-¹ Relation between housing alternatives and social status (Corehouse or apartment in a building)

Housing alternatives \ Social status	Corehouse		Apartment in a building		N./A.		Total
	N	%	N	%	N	%	
Married	125	35.31	170	48.02	59	16.67	354
Unmarried	16	37.21	25	58.14	2	4.65	43
Divorced	1	50.00	1	50.00	-	-	2
Widower	-	-	-	-	1	100	1
Total	142	-	196	-	62	-	400

$\chi^2 = 0.12$
 d.o.f. = 1
 not significant

Table 55-² Relation between age of H.H. and housing alternatives (Corehouse or apartment in a building)

Housing alternatives \ Age of H.H.	Corehouse		Apartment in a building		N./A.		Total
	N	%	N	%	N	%	
20 -	2	22.22	6	66.67	1	11.11	9
25 -	34	42.50	41	51.25	5	6.25	80
30 -	53	34.64	81	52.94	19	12.42	153
35 -	27	35.53	33	43.42	16	21.05	76
40 -	15	29.41	23	45.10	13	25.49	51
45 -	7	30.43	10	43.48	6	26.09	23
+ 50	4	50.00	2	25.00	2	25.00	8
Total	142	-	196	-	62	-	400

$\chi^2 = 1.04$
 d.o.f. = 4
 not significant

Table 55-¹ Relation between the job of H.H. and housing alternatives (Corehouse or apartment in building)

Housing alternatives Job of H.H.	Corehouse		Apartment in a building		N./A.		Total
	N	%	N	%	N	%	
Unskilled worker	8	28.57	15	53.57	5	17.86	28
Skilled worker	122	36.31	166	49.40	48	14.29	336
Self employed	1	50.00	-	-	1	50.00	2
Employee	10	32.25	13	41.94	8	25.81	31
Service labourer	1	33.33	2	66.67	-	-	3
Total	142	-	196	-	62	-	400

$$\chi^2 = 0.57$$

$$\text{d.o.f.} = 2$$

not significant

Table 55^h Relation between number of persons living
in H.H. and housing alternatives

Housing alternatives Number of person. in H.H.	Corehouse		Apartment in a building		N./A.		Total
	N	%	N	%	N	%	
1	2	50.00	2	50.00	-	-	4
2	26	46.43	27	48.21	3	5.36	56
3	21	42.00	21	42.00	8	16.00	50
4	28	32.14	46	58.33	11	9.52	85
5	27	36.49	33	44.59	14	18.92	74
6	13	27.66	25	53.19	9	19.15	47
7	13	35.14	14	37.84	10	27.02	37
8	3	21.43	10	71.43	1	7.14	14
9	6	50.00	3	25.00	3	25.00	12
+ 10	3	14.29	15	71.42	3	14.29	21
Total	142	-	196	-	62	-	400

$\chi^2 = 7.15$
d.o.f. = 7
not significant

Table 55- Relation between education level of H.H.
and housing alternatives

Housing alternatives Education level of H.H.	Cordhouse		Appartment in a building		N./A.		Total
	N	%	N	%%	N	%	
Illiterate	1	9.90	7	63.64	3	27.27	11
Read and write	27	33.75	36	45.00	17	21.25	80
Primary	13	24.53	31	58.49	9	16.68	53
Preparatory	15	40.54	18	48.65	4	10.81	37
Secondary	65	37.79	82	47.67	25	14.54	172
Intermediate	16	42.11	13	50.00	3	7.89	38
University degree	5	55.56	3	33.33	1	11.11	9
Total	142	..	196	-	62	-	400

$$\chi^2 = 3.01$$

$$\text{d.o.f.} = 4$$

not significant

Table 55- Relation between the total income of H.H. and housing alternatives

Housing alternatives Total income of H.H.	Corehouse		Appartment in a building		N./ A.		Total
	N	%	N	%	N	%	
10 -	-	--	2	100	-	-	2
20 -	19	43.18	22	52.27	3	4.55	44
30 -	32	31.42	61	58.10	13	10.48	106
40 -	31	40.26	38	49.35	8	10.39	77
50 -	24	36.92	32	49.23	9	13.85	65
60 -	14	33.33	17	40.48	11	26.19	42
70 -	6	27.27	7	31.82	9	40.91	22
80 -	6	33.33	10	55.55	2	11.11	18
90 -	1	25.00	2	50.00	1	25.00	4
+ 100	9	45.00	5	25.00	6	30.00	20
Total	142	-	196	-	62	-	400

$\chi^2 = 5.59$
d.o.f. = 7
not significant

Table 55-³ Relation between crowding rate of H.H. and housing alternatives

Housing alternatives Crowding rate of H.H.	Corehouse		Apparment in a building		N./A.		Total
	N	%	N	%	N	%	
Less than 1	14	37.84	15	40.54	8	21.62	37
1 -	66	40.99	67	41.62	28	17.19	161
2 -	33	29.20	67	59.29	13	11.50	113
3 -	14	29.79	23	48.94	10	21.28	47
4 -	8	40.00	11	55.00	1	5.00	20
5 -	2	15.39	10	76.92	1	7.69	13
+ 6	5	55.55	3	33.33	1	11.11	9
Total	142	-	196	-	62	-	400

$$\chi^2 = 7.63$$

$$\text{d.o.f.} = 5$$

not significant

56. Distribution of Householders according to the reasons of buying a small house (one room to be extend later)

Reasons	Workers	
	N	%
Because it is independant)	99	69.71
I prefer privacy) for my wife	5	3.52
Not accustomed to) live in buiding	2	1.41
I can benefit from) the garden	49	34.51
I can build as I wish	88	61.97
Total	142	100
N/A	258	
G. Total	400	

57. Distribution of Householders according to the reasons of preferring an apartment in a building

Reasons	Workers	
	N	%
Cleaner and more organised)	36	18.37
I have many children and prefer 3 rooms)	56	28.57
The building is safer	22	11.22
I will not be able to build the extension)	113	57.65
The maintenance of a flat is cheaper)	38	19.39
Total	196	100
N/A.	204	
G.T.	400	

**58 - Distribution of Householders according to
if they would like to be housed in an
area assigned for labourers**

If they would like to be housed in an area assigned for labourers	Workers	
	N	%
Yes	240	69.57
No	104	30.43
Total	344	100
N/A	56	
G. total	400	

**89 - Distribution of Householders according to
the reasons of preferring living with
other Labourers**

Reasons	Workers	
	N	%
Companionship	97	40.42
Same interests	27	11.25
The factory might give us better services if we are grouped together	116	48.33
Total	240	100
N/A	160	
G. total	400	

**60-Distribution of Householders according to
the Reasons of Refusing to Live with
Other Labourers**

Reason of Refusing	Workers	
	N	%
I dont like to be housed with my colleagues	55	53.33
I dont like my colleagues to interfere in my life	40	38.10
We are not in good terms	9	8.57
Total	104	100
N. A.	291	
G. Total	400	

64. Distribution of Householders according to
the way they owned their house

Way of owning	Workers		Householders in H.H		Total	
	N	%	N	%	N	%
Built	9	27.03	157	78.11	167	70.17
Inherited	12	32.43	11	5.47	23	9.66
Bought	2	5.41	20	9.95	22	9.24
1 + 2	2	5.41	4	1.99	6	2.52
1 + 3	3	8.11	7	3.48	10	4.20
Not known	8	21.62	2	1.00	10	4.20
Total	36	100	201	100	237	100
N/A	364		99		463	
Total	400		300		700	

62- Distribution of Householders according to
the way they built their house

Way of building	Workers		Householders in H.H		Total	
	N	%	N	%	N	%
One stage	—	—	8	5.09	8	4.79
Several stages	9	100	149	94.91	158	95.21
Total	9	100	157	100	166	100
N/A	391		143		534	
Total	400		300		700	

**63- Distribution of Householders according to
the person who built the house**

Who built the house	Workers		Householders in H.H		Total	
	N	%	N	%	N	%
(1) Contractor	1	10	10	6.37	11	6.59
(2) Bricklayer	7	80	126	80.25	133	80.74
(3) My children and myself	1	10	21	13.38	22	13.17
Total	9	100	157	100	166	100
N/A	391		143		534	
Total	400		300		700	

**64- Distribution of Householders according to
having the money of the construction**

If they had the money of the construction	Workers		Householders in H.H.		Total	
	N	%	N	%	N	%
- They had the money	5	55.55	76	48.41	81	48.50
- Borrow the money	-	-	11	7.01	11	6.59
- Both	4	44.45	70	44.58	74	44.91
Total	9	100	157	100	166	100
N/A	391		143		534	
G.T.	400		300		700	

**65-Distribution of Householders according to
to the source of borrowing**

Sources of borrowing	Total	
	N	%
1- Not known	1	9.09
2- Gameya	5	45.46
3- From relatives	1	9.09
4- From friends	1	9.09
5- 2+3	1	18.18
6- 3+4	1	9.09
Total	11	100
N/A	689	
G. total	700	

66 - Distribution of Householders in Hgdaiq Helwan according to their acceptance to participate in the cost of a sewage system

Acceptance to Participate	Householder in H.K.	
	N	%
Yes	233	95.88
No	10	4.12
Total	243	100
N/A	57	
G. total	300	

66. Distribution of Householders according to the monthly amount they could pay to participate in introducing a sewage system

Monthly payment	Householders in H.H.	
	N	%
1	49	21.03
2	76	32.61
3	40	17.17
4	16	6.87
5	48	20.60
+ 6	4	1.72
Total	233	100
N/A	67	
Total	300	

G7 - Distribution of Householders according to reasons given for non-participation in upgrading their area

Reasons	Householders in H.H.	
	N	%
Have no surplus	5	50.00
Government responsibility)	3	30.00
Government realize too slowly)	2	20.00
Total	10	100
N/A	290	
G. Total	300	

68- Distribution of householders according to their willingness to make improvement in their house

Willing or not	H.H.	
	N	%
Yes	218	72.67
No	82	27.33
Total	300	100

69-Distribution of householders according to kind of improvements wanted

Kind of improvement wanted	Householders in H.H.	
	N	%
1- add rooms	39	64.12
2- New roofing system	87	39.91
3- Paint the house	54	24.77
4- Repair the floor	67	30.73
4- Repair doors and windows	51	23.39
4- Construct and repair water closet	71	32.56
Total	218	100
N./A.	82	
G. Total	300	

**Distribution of Householders according to
if they are ready to pay monthly for
repairs needed**

Ready or not	Householders in H.H.	
	N	%
Ready to pay	194	79.84
Not ready to Pay	43	17.70
N.K.	6	2.46
Total	243	100
N/A	57	
G. total	300	

71. Distribution of Householders according to
the reason of refusing to pay for the
reparations needed

Reason of refusing	Householders in H.H.	
	N	%
Have no surplus	13	30.23
Other priorities	2	4.65
The government execution is too slow	6	13.95
The interests will be too high	22	51.17
Total	43	100
N/A	257	
G. total	300	

71. Distribution of Householders according to their ability to make the reparations needed by themselves

Ability to make	Householders in H.H.	
	N	%
Yes	76	39.18
No	113	60.82
Total	194	100
N/A	106	
G.T.	300	

73. Distribution of Householders according to availability of services

Availability of services	Workers		Householders in H.H		Total	
	N	%	N	%	N	%
Schools	298	74.56	46	15.33	344	49.22
Public areas	130	32.42	9	3.00	139	19.83
Health units	226	56.61	4	1.33	230	32.95
Youth clubs	130	32.42	21	7.00	151	21.54
Consumption cooperative	211	52.62	23	7.67	234	33.38
Shops	326	81.30	105	35.00	431	61.48
Maternal and child centers	184	46.13	12	4.00	196	28.10
Transportation	155	38.65	34	11.33	189	26.96
Infrastructure	225	51.12	6	2.00	131	18.69
Total	400	100	300	100	700	100

74- Distribution of Householders according to
not availability of services

Not availability of services	Workers		Householders in H.H		Total	
	N	%	N	%	N	%
Schools	11	2.74	38	12.67	49	6.99
Public areas	170	42.39	207	69.00	377	53.78
Health units	97	24.19	234	78.00	331	47.22
Youth clubs	190	47.63	241	80.33	431	61.63
Consumption cooperative	28	6.98	144	48.00	172	24.54
Shops	12	2.99	166	55.33	178	25.39
Maternal and child centers	94	23.44	216	72.00	310	44.22
Transportation	22	5.49	84	28.00	106	15.12
Infrastructure	40	9.98	73	24.33	113	16.12
Total	400	100	300	100	700	100

**75-Distribution of householders according to
lacking of services**

Lacking of services	Workers		Householders in H.H		Total	
	N	%	N	%		%
Schools	89	22.19	214	71.33	303	43.22
Public areas	87	21.96	82	27.33	169	24.25
Health units	73	18.20	62	20.67	135	19.26
Youth clubs	70	17.46	35	11.67	105	14.98
Consumption cooperative	159	39.90	131	43.67	290	41.51
Shops	62	15.46	29	9.67	91	12.98
Maternal and child centers	66	16.46	43	14.33	109	15.55
Transportation	211	55.36	182	60.67	403	57.63
Infrastructure	153	38.40	221	73.67	374	53.50
Total	400	100	300	100	700	100