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A Survey of HOUSING in ETHIOPIA

with Special Emphasis on THE CAPITAL CITY of ADDIS ABABA

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Addis Ababa, Ethiopia
June, 1965

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PREFACE

Based upon a request from the Vice Minister of Finance, Imperial Ethiopian Government, who is also Chairman of the Board of Directors of the Imperial Savings and Home Ownership Public Association, Addis Ababa, USAID/Ethiopia requested USAID/Washington assistance in obtaining the services of a team of technicians in the field of housing to visit Ethiopia for up to sixty days for the purpose of making a survey of the total housing situation in order to identify needs and to determine various courses of action that could be taken in an effort to improve the housing situation, the construction and building materials industries, and related home financing institutions. It was specifically requested that the team be composed of a Housing Generalist, an Economist, and a Specialist in Cooperative Housing.

Arrangements were made for the assignment to this team of Mr. J. Robert Dodge, Director, Division of Technological Services, Office of International Housing, Housing and Home Finance Agency, Washington D.C.; Mr. Burton O. Young, Deputy Assistant Administrator, Office of Community Programs, also of HHFA; and, Mr. L. Albert Wilson, Consultant, The Foundation for Cooperative Housing, Washington, D.C., to serve, respectively, in the particular specialties indicated and in the overall team effort.

The team commenced its work on April 11 and finished on June 4, 1965. Its report is addressed to the Imperial Ethiopian Government and the Agency for International Development. It should also be of interest and use to others having a concern for housing problems and possible solutions in Ethiopia and other developing countries.

INTRODUCTION

Acknowledgements

The team is indebted to those who briefed it both before leaving Washington and on arrival in Addis Ababa. These briefings were most helpful and time-saving toward setting the direction and course of the survey, providing knowledge and advice on sources of published information, and in pointing to key officials and other persons to interview who would be knowledgable and helpful with respect to various phases of the survey.

In its first briefing the team was instructed and advised by Mr. Richard Knight, Chief, Housing Division, Office of Institutional Development, Bureau for Africa, AID, and Mr. Thomas Bradley, Project Director, International Program, National League of Insured Savings Associations, who were informed on the origin and operation of the Imperial Savings and Home Ownership Public Association. Participating in a later briefing along with Mr. Knight were Mr. Donald Bergstrom, Desk Officer for Ethiopia, AID; Mr. James Moore, Assistant Administrator, Office of International Housing, Housing and Home Finance Agency; and Mr. Bernard Wagner, International Housing Advisor, formerly AID Regional Housing Adviser for Africa, presently with OIH-HHFA. Discussions in Washington with Mr. Ferrar, an architect with experience in Ethiopia, and Mr. William K. Divers, Executive Director, U.S. Savings and Loan League, a participant, along with Mr. Wagner, in an overall survey of African Housing in 1961, were also very helpful.

Shortly after arrival in Addis Ababa the team met with Mr. Willard H. Meinecke, USAID Mission Director, and Mr. Donald F. Miller, Acting Program Officer, and with the Honorable Edward M. Korry, U.S. Ambassador to Ethiopia, for further briefings on the Ethiopian scene and the problems in the housing field to be explored.

An especially grateful acknowledgement must be made of the generous assistance given the team by the Imperial Savings and Home Ownership Public Association--to the Chairman of the Board of Directors, His Excellency Ato Mulatou Debebe, also Vice Minister of Finance; the Director, Ato Getachew Tessoma, the Acting Director, Ato Abdul Samed Ahmed; and Chief Engineer, Ato Bekele Dina.

The team also wishes to place on record its deep appreciation and gratitude for the help it received from all sides. All of the government officials and other persons interviewed (a list appears in the Appendix) were most cordial and cooperative. Also to the USAID Mission and U.S. Embassy staffs, who, with patience and skill, assisted the team members in many ways, large and small--the team expresses its thanks.

Scope of the Survey

So that the title of the report not be misleading, some explanation of the scope and coverage of the survey is desirable. While the assignment was for a survey of housing in Ethiopia, it was soon apparent that anything approaching a thorough-going housing survey, urban and rural, in this large and populous country would not be possible in the alloted period of time. Becuase it was apparent that the problems with respect to housing are greater, and of more concern to all, in the large and expanding capital city, concentration on Addis Ababa was called for.

The team would have liked to visit and study more of the lesser-sized cities, particularly Asmara, by far the next largest, than it found opportunity for, but to have done so would have necessitated the neglect of some important aspects of the Addis Ababa situation. The impending possibility of an Investment Guaranty program for Addis Ababa, and the length of time that it took to gather and analyze much of the essential information, are also reasons for the limited coverage of the report on the housing situation outside of Addis Ababa. This should not be taken to mean that the coverage of Addis Ababa is entirely comprehensive and complete, nor that the urban and rural coverage is only superficial. Much of the information gathered and presented, such as basic legislation, regulations, economic activities, social structure, customs, practices, etc., pertains to all areas. The problems in small villages and rural areas, while real, are obviously not as acute as the urban problems and probably rate a lesser priority of attention and development of means for solution than other problems such as health and education.

The team did have the opportunity to visit several of the smaller cities such as Dire Dawa, Nazareth and Sodo. At Dire Dawa, possibilities and means for cooperative development were studied; at Nazareth, housing built and under construction by the Army, partly with soldier labor, for commissioned and non-commissioned officer families, was viewed; near Sodo, a new resettlement project was examined. A "new town" development with instruction being given in self-help housing construction was visited at Zwai. The team also observed small villages, and rural housing in the provinces of Shoa Arussi, Sidamo, Hararge and Wollo.

It is a hope of the team that this report may provide a useful foundation for continuing, and up-dating, studies of the housing situation as it changes in Addis Ababa, and for more definitive studies in the principal cities and towns and in the rural areas.

Finally, the team recognizes--and trusts that readers will also recognize--the limitations of this report, and probably all similar reports. The housing field is very complex and dynamic, and reports and recommendations may be subject to change or misinterpretation. The facts upon which recommendations are based may alter. Opinions, upon

which reliance was placed in lieu of unobtainable facts, may prove to have been ill-founded. It is partly for these reasons that some of the recommendations have been addressed to the need for an institution, or institutions, responsible for housing, and for technical assistance in developing such an institutional framework, in order to give continuity to this study and to develop others.

NOTE: Dollar figures throughout the report are designated as either U.S. dollars or Ethiopian dollars. The conversion rate is approximately 2.5 Ethiopian dollars to one U.S. dollar.

PART ONE

CONCLUSIONS AND RECOMMENDATIONS

The need for a realistic long range housing program in Ethiopia is evident.

Serious housing shortages exist in Addis Ababa and probably to a lesser degree in other major cities of Ethiopia. Not that there are any substantial number of people without shelter, but there is acute overcrowding in Addis Ababa and the bulk of the population, including many in the middle and low-middle income brackets, are living in substandard dwellings. Many of these dwellings are located in areas which lack acceptable means of access, safe sewage disposal facilities, or even piped water supply. The dwellings themselves are often of semi-permanent (chica) construction in bad repair, without adequate light and ventilation, piped water or even minimum toilet and bathing facilities.

Available statistics also indicate that not nearly enough new dwellings are being constructed annually to satisfy the increase in population, at any income level, much less to allow for: (1) a reduction in overcrowding, (2) for replacement of substandard dwellings, or (3) the rehousing of low-income families in Addis Ababa displaced as a result of public and private construction.

The analysis of the survey team indicates that the present total requirement to bring housing in Addis Ababa up to quite minimum standards conducive to health, safety and livability is some 82,000 units. Most of this requirement or need is on the part of the lower income groups and characterizes a problem that will undoubtedly take a long time to solve. There are significant numbers, however, in the higher income groups where income should be sufficient to make it possible to satisfy their needs through private financing providing the proper institutional framework is developed which will afford a sufficient volume of home financing on reasonable terms and thus contribute to the development of a home-building industry capable of reducing costs.

The total current housing need by income group is shown below with indications of what families in each group can afford in the way of monthly payments for housing, and the sales prices of houses those payments would command on reasonable financing terms (8½% interest, 20 year amortization, 10 percent down payment):

Income Group (Eth.$ per month)	Housing Needed	Monthly Payments (Eth.$)	Sales Prices (Eth.$)
Lower (Less than 300)	67,300	Less than 45	Less than 5,800
Low-Middle (300-500)	9,600	45 - 100	5,800 - 12,800
Middle-Middle (500-800)	3,300	100 - 180	12,800 - 23,000
High-Middle (800-1500)	1,800	180 - 375	23,000 - 48,000
High (1500 and over)	Negligible	375 and over	48,000 and over

Private enterprise should be able to meet these needs well down into the low-middle income group. Actual immediate market demand is likely, because of various factors, to be considerably less than the indicated need, but could well amount to one-third to one-half. Thus, if the housing were properly distributed within the price ranges, well constructed and attractively designed, reasonably conveniently located, and adequately served by community facilities, there should be a fairly well assured near-term market of some 4,000 units in the low-middle group, 1,400 units in the middle-middle group and 800 units in the high-middle group, for a total of 6,200 units. A part of this might best be built as rental rather than sales housing. This market could readily expand toward the need figures if there developed general and enthusiastic acceptance for the housing initially constructed.

Housing for Middle Income Groups

At the present time, the problem which appears to require immediate attention for several reasons is the provision of housing for the growing middle income groups in Addis Ababa (those earning from Eth.$300 to $1,500 per month). These total some 28,840 families, of which about 14,700 need better housing and can pay for it. These are the younger, educated heads of families or in some cases single men or women who are holding responsible positions in government and private industry and are acutely unhappy either with the quality of their housing or with the unreasonably high rents they are forced to pay for decent accommodations.

Although these families and individuals are well able to pay for satisfactory housing, given reasonable financing terms, there are only two institutions financing housing for any segment of this group. One of these is the Imperial Savings and Home Ownership Public Association and so far it has financed only 45 houses, all of which are valued (including land) at about Eth.$20,000 or more. In most instances the Association has served only the high-middle income group (those with total family incomes of Eth.$800-$1,500) or those in the middle-middle income group who had accumulated substantial savings and/or had other resources to enable them to own a fairly expensive home. It presently has no money to lend and has a long waiting list of applicants for loans. The Commercial Bank of Ethiopia also finances the construction of houses but its terms are so stiff that only a limited number of high-middle and high income families, or those with substantial resources, can afford them.

Fortunately, there is at least one proposal for an Investment Guaranty project under consideration, with the possibility of a second, for the construction of 1,000 to 1,200 dwelling units (single family detached, semi-detached, and row houses as well as some apartments) that would sell within the range of Eth.$12,000 - $18,000 including land and facilities. Should either this project, or the second, which is reportedly in a lower price category but for which no application

has yet been received, be constructed, the tension developing within the middle-middle and at least part of the low-middle income groups would be reduced.

If the Imperial Savings and Home Ownership Public Association were in a position to make loans to the low-middle and middle-middle income familes as well as those in higher income brackets to supplement the housing projects mentioned above, the situation would be further improved.

A "seed capital" loan to the Imperial Savings and Home Ownership Public Association, at least half of which would be earmarked for loans to families in the low-middle and middle-middle income bracket, possibly with a government guaranty of these mortgages, would be the most effective means of accomplishing this.

Such a loan would not only have the effect of making funds immediately available for the construction of housing in the price range where it is badly needed, but it is also highly probable that a step-up in the lending activities of the Association would tend to result in an increase in savings by others who want a home but who are now discouraged from saving in the Association by the fact that the waiting list is so long that their chances of a loan in the near future are negligible.

The interest rate paid on savings accounts by the Commercial Bank is presently 4½% but its mortgage rates are 7½% on construction loans and 8½% on loans for the purchase or improvement of properties. These loans have a maximum life of 5 years. Loans for the construction of property valued up to Eth.$20,000 may be for the full value of the property, providing collateral is pledged in an amount twice the value of the loan.

Furthermore, government bonds in Eth.$100 denominations paying 6½% interest are available to savers.

The Association, on the other hand, is limited to a charge of 6% - 7% on its mortgages, which in turn virtually limits payment on savings to 4½%. It is also limited to a 75 percent mortgage requiring a 25 percent down payment. If limitations on both the down payment and mortgage interest rate were removed, permitting the Association to make adjustments to the market, it could undoubtedly attract a greater volume of free savings and possibly find a secondary market for its mortgages, thus liquifying its assets to serve an ever increasing number of prospective home-owners. Indeed, its capability of servicing a single-mortgage cooperative development of 50-200 houses will await such an adjustment.

Government insurance of mortgages made by the Association is also worth considering. When coupled with somewhat more realistic interest

rates such insurance might well stimulate a private market for the mortgages held by the Association or make it easier for the Association to secure loans using their mortgages as collateral.

Coupled with an immediate seed capital loan to the Association to provide funds for mortgages, there should also be a program to stimulate the development of a home building industry.

At present, there are no builders in Ethiopia who are catering to the low-middle or middle-middle income groups and many of these families would probably have difficulty acquiring land and in getting their houses designed and built if loans were made to them as individuals.

Given financing from the Association, one means of accomplishing this promptly would be to encourage one or more experienced private contractors in Ethiopia to act as entrepreneurs and organize cooperatives among groups of families, some of whom are already organized and purchasing their land. Such an arrangement would not only make it possible for these families to obtain satisfactory housing quickly but should certainly result in lower costs due to large scale construction and single mortgage financing as against individual custom built houses and individual mortgages. Since Ethiopian contractors lack experience in organizing cooperatives, expert guidance in this phase of the undertaking would be necessary. This assistance could be provided by the Foundation for Cooperative Housing.

It is recognized that cooperatives are not the only means of st mulating large-scale efficient building. Encouragement, technical assistance and training should therefore be provided Ethiopian contractors to stimulate them to increase efficiency and undertake the role of entrepreneur rather than that of purely "custom builders."

To summarize, the survey team believes that if the following steps are taken, the acute demand for housing in the middle income groups will be substantially relieved over the next five years.

1. If one or more of the proposed Investment Guaranty projects is constructed.

2. If an immediate seed capital loan of about Eth.$2,500,000 is made to the Imperial Savings and Home Ownership Public Association thus enabling it to increase its lenging capacity for the benefit of all three of the middle income groups.

3. If an ability to discount or borrow on its mortgages and to attract more savers in general through more realistic interest rates on both mortgages and deposits and lower down payments is made possible.

4. If an entrepreneurial capacity either through cooperatives or the education of contractors is developed.

Housing for Low Income Groups

As important as is housing for those who can afford it, given reasonable financing terms, it would be folly for the government to ignore over 77 percent of the population of Addis Ababa who cannot afford it without some kind of help.

At the present time there is no continuing program nor adequate provisions for those families displaced as the result of the construction of roads or public and commercial buildings or the destruction of deteriorated housing in the central city. This number has apparently been fairly substantial in the past and probably will continue to grow as further public improvements are undertaken and as new large buildings are put under construction. It appears that these people either move to a new site (sometimes provided by the Municipality) and erect another substandard dwelling or possibly move in with friends or rent an old house or portion of an existing house thus contributing to already overcrowded accommodations. One official, when asked what happens to these displaced people, responded, "They just disappear."

It is also essential that sooner or later some program be developed to make provisions for those low income families who are migrating to Addis Ababa from rural areas and other communities. While immigration does not appear excessive at this time, indications are that it is increasing and a laissez-faire attitude could result in an extensive squatting problem such as that found in cities of many developing countries.

Serious slum problems of the future are being created and will intensify unless steps are taken to improve the provision of housing for displaced and in-migrant low income families. Present policy, or lack of it, simply results in the transfer of slums from the city center to the fringes.

The survey team therefore recommends that the Municipality of Addis Ababa establish a permanent Housing Authority to be responsible for housing problems in general, and the relocating and rehousing of low income displaced persons in particular. It is further recommended that as soon as possible, an expansion be made, perhaps in a different location, of the Kolfe aided self-help project. However, this should be undertaken on a more realistic scale; perhaps 100 houses, in order to demonstrate different approaches to aided self-help to determine the most effective for Addis Ababa. It is believed that this could well be a self-liquidating project for families of incomes of about Eth.$100 per month. All costs of materials, overhead and supervision would be paid by the participants over 20 years at 6% interest. It is suggested that land be leased to the owner of the house on a 60-year basis at a reasonable rental with the right of renewal at the expiration of the lease.

In order to avoid setting up a special staff in the Municipal Housing Authority to collect payments, thus increasing overhead, it is recommended that the Imperial Savings and Home Ownership Public Association serve as the fiduciary and service these mortgages.

It is also recommended that the Municipality limit to a minimum the destruction of existing dilapidated housing until such time as an effective program for rehousing displaced families is developed.

A National Housing Agency

No institution or agency of government either at the national or municipal level now exists which has any responsibility for housing policy or programs for any segment of the population.

Although the problem of rehousing any substantial numbers of low income urban families is one that can be resolved only through a long range program involving assistance of some kind, it is essential that policy be formulated and a realistic program developed and begun. This requires the immediate establishment of an urban housing institution at the national level with appropriate responsibility, authority and at least minimum staff and operating funds.

Whether this institution should take the form of a Housing Ministry, an Office within an existing Ministry, or a National Housing Agency or Corporation (along the lines of the Imperial Highway Authority) is not within the competence of the survey team to recommend. Much depends on the scope and type of program the Imperial Ethiopian Government is prepared to consider and the amount of funds that would be made available at the outset.

The Housing Agency, whatever form it might take, should have the responsibility for formulating policy covering social, financial and technical details subject to the approval of the Imperial Ethiopian Government and for implementing such policy. Among its other responsibilities it should:

1. Develop housing legislation.
2. Provide technical assistance to municipal governments in developing housing programs from the planning through the construction and management phases.
3. Collect housing statistics either through its own resources, or preferably through the Central Statistical Office, in order to be able to estimate housing needs and the market for housing in urban areas at any given time.
4. Ensure that appropriate priority is given to housing and related programs in national development planning.
5. Coordinate the work of all agencies concerned with housing and related programs.
6. Ultimately be able to assist in the financing of housing projects for low income families preferably through municipalities.

This institution might also appropriately have the authority to insure mortgages, for a fee, on housing financed by the Imperial Savings and Home Ownership Public Association and commercial banks, if and when such a device is deemed necessary or desirable.

The Agency might also have the responsibility for developing uniform housing and building codes for residential construction in collaboration with the Building College, the Ministry of Public Works and the Ministry of Health, for adoption and enforcement by municipalities.

The Agency might also have the authority to sponsor research in all aspects of housing, social, economic and physical, and to encourage the standardization of building materials and stimulate increased production of building materials and components.

It should have a responsibility for callaborating with the Ministry of Interior in its programs of developing master plans for the cities of Ethiopia, to assure that adequate recognition be given to housing and to assist in the formulation of zoning ordinances.

The Agency might have the authority to acquire, or to assist municipal authorities to acquire and develop, low cost land in critical areas such as Addis Ababa for resale at a reasonable profit or for lease, to builders, cooperatives and individuals as needed for the construction of housing for low and low-middle income families.

Since no experience exists in Ethiopia in organizing and administering a housing agency, one possibility occurs to the team; namely, that a management contract be entered into with an Agency such as the U.S. Housing and Home Finance Agency to develop a suitable organizational structure and provide expert administration until such time as a staff of Ethiopians can be trained to take over and carry on the program.

It is also recommended that Municipal Housing Authorities be established in the various municipalities as needed. This applies particularly in Addis Ababa, where, as indicated earlier, one is needed now. These authorities should be responsible for the planning and execution of housing and related programs within their jurisdictions, in conformance with the national housing policy and subject to the review and approval of the National Housing Agency. The municipal authorities should also have among other duties, the responsibility for adopting and enforcing housing and residential building codes and for assisting the National Housing Agency in collecting information on the housing need and the market for housing.

Community Facilities

Basic to any urban housing program is the provision of essential community facilities, including a safe water supply, an adequate sewage disposal system and reasonable access to all dwellings over all-weather

streets to permit passage of fire equipment and ambulances as well as commercial and private vehicles. Streets could be supplemented, if necessary, by pedestrian walks to reach individual houses which it is not possible to locate directly on a street.

Addis Ababa and many other Ethiopian cities lack at least some of these facilities.

Sewage System

For example, the team does not believe that it is realistic to stimulate the construction of modern, relatively high density housing projects (including high-rise apartment buildings)in the central residential areas of Addis Ababa without a modern sewage disposal system and safe piped water.

While a sewer construction program should be the responsibility of the Municipality of Addis Ababa rather than that of a housing authority, no long range housing program should be mounted without such a facility.

The survey team, therefore, strongly recommends that the Municipality take immediate steps to carry out the recommendation contained in the report entitled "Study of Public Health and Sanitation Requirements - City of Addis Ababa by the Working Party" - October 1964, of which Ato Yohannes W. Gerima was Chairman and Mr. Emil E. Jensen, WHO consultant was Rapporteur.

Taxation on Real Property

Tax rates on real property in Addis Ababa, and the amount of revenue derived, are very low. As shown in the body of the report, buildings are taxed only if they are income producing and at the low rate of 2 percent of the annual rent or assessed rental value. Owner-occupied homes are exempt from taxation except for the land. Land tax is assessed according to location, accessability and use with a sliding scale of rates applying to seven "Sections" within three major "Zones". The rates are low and the classifications are not closely related to true market value. See Chapter XI.

The revenue derived from real property taxation is far from sufficient to meet the costs of presently deficient community services, to say nothing of the needed improvement in such services. While the low level of taxation makes it easier for families to own their own homes, all general experience indicates that they would prefer paying more if it resulted in improved services.

It is recommended, therefore, that if the Municipality of Addis Ababa is not already doing so it should conduct a thorough review of policy and legislation affecting real property taxation in relation

to its revenue needs for expanding and improving its community services. It is also recommended that the National Government conduct a similar review with respect to policy and legislation affecting real property taxation in all other urban areas.

Building and Building Materials Industries

Two other essential elements of any housing program are adequate building and building materials industries.

As is indicated in this report, an entrepreneurial building industry geared to large scale production of low and moderate cost dwellings for sale or rent does not presently exist. Most dwellings are individually or "custom" built and the education and training of contractors to undertake "speculative" building in some volume is essential. Building costs in Ethiopia are high compared with many developing countries in Africa and elsewhere. This stems at least partly from the practice of "custom" building. Under such circumstances it is difficult to take advantage of mass purchasing of materials, effective organization and utilization of work crews, the purchasing and development of larger tracts of lower cost land, and large scale production of building components.

As was recommended earlier, a training program should be mounted as soon as feasible, possibly utilizing the Building College staff supplemented by a U.S. builder who would serve as consultant and instructor. It is also suggested that selected contractors be given an opportunity to visit the United States. The U.S. home building industry has attained a high degree of efficiency utilizing predominantly improved traditional building materials and techniques rather than attempting to resort to large scale prefabrication which requires high capital outlay for plant and equipment. While the latter approach has great appeal to developing countries it has yet to prove itself and is certainly unrealistic for Ethiopia at this time.

Large scale construction of buildings also requires standardization of building materials and components and quality control in their manufacture.

While it is variously reported, that: (1) the capacity of the building materials industry is adequate for present requirements or (2) some materials such as brick are already in short supply, it is generally agreed that a substantial step-up in construction would undoubtedly result in a shortage of at least some of the basic materials that are domestically produced, with the possible exception of cement. This could result in increased prices.

An efficient building industry must be able to depend on suppliers to furnish good quality, standardized materials on schedule. It is

understood that the producers of some materials such as concrete block, cement pipe, etc., do not ordinarily stock supplies against anticipated demand but produce on a hand-to-mouth basis. One solution suggested was that builders produce their own block for large scale projects. The survey team feels that while this might be possible in some cases, it is essentially a make-shift arrangement and not a suitable solution over the long run. Furthermore, it does not necessarily answer the need of the smaller entrepreneur who may be building relatively small projects.

The team therefore recommends than an immediate start be made by the Ministry of Commerce to make an accurate survey of the potential demand for building materials over the next few years and then encourage building materials producers to modernize equipment and be prepared to expand their production and improve and even diversify their products to meet anticipated demand not only in Addis Ababa but elsewhere if necessary.

Labor Force

Although there are a large number of men employed in the field of construction, the bulk of them are "coolies" or unskilled laborers. Because labor is cheap and plentiful there seems to be a tendency to use excessive numbers of men as a substitute for mechanical equipment. On some types of construction jobs this is feasible and may even make good sense. However, in the construction of dwellings where only limited numbers of unskilled laborers are actually needed, excessive numbers only get in each others way and make efficient operation difficult. While it is reported that there is presently an adequate supply of skilled workers, observation of the quality of the construction would indicate that the term is relative.

There is no organized program of apprenticeship training such as is common in European countries and the United States. While many of the skilled workers have learned their trade on the job, it has been a hit-or-miss type of training.

Since skilled workers, masons, carpenters, plumbers, electricians, etc., are the backbone of the home building industry, it is recommended than an organized program of apprenticeship training be set up under the sponsorship of the Ministry of Education which is already developing plans for the training of instructors who can direct and participate in this type of training.

Rural Housing

There is no question that by modern standards, rural housing in Ethiopia leaves much to be desired. Such housing is often semi-permanent in character, overcrowded and families often lack even rudimentary

facilities for disposal of human waste. Furthermore, many families do not have safe water available within reasonable distance. In fact, it appeared to the survey team that the provision of convenient supplies of safe water for small villages and resettlement areas was much more important than housing per se. Also important are the construction and staffing of schools and health centers or clinics.

Nevertheless, rural housing should not be ignored; but, until such time as rural families are incorporated into the money economy to a greater extent than they now are, it is difficult to mount a program that will provide large numbers of these families with modern dwellings using manufactured materials without some form of subsidy.

The present programs, small as they are, represent a step in the right direction. The construction of demonstration houses which show the advantage of better construction, greater space and divided living quarters should certainly help in the long run. Demonstrations of techniques for up-grading traditional methods of construction--for example, by employing stabilized earth or lime or cement plaster for protecting the exterior of chica walls and the use of stabilized earth for floors are also useful devices for promoting better rural housing.

On the other hand, in resettlement areas such as the one the team saw in Sidamo Province near Sodo, where substantial numbers of families will have to be housed, some form of direct technical assistance to families might be a useful supplement to the demonstration houses which are to be erected.

Social and Economic Effects

The beneficial social effects of improved housing and environmental conditions are readily recognizable in that they lead to a more safe, sanitary, healthful, decent and satisfying way of life. The economic effects are less recognizable but, nonetheless, real and substantial. Increase in the size and quality of the housing inventory brings investment and expansion in the building industry, including the production of materials and the development of builder entrepreneurship. It means additional employment in the building trades and the development of skills and crafts. It means the development or expansion of financial institutions for the accumulation of savings as a means of further investment. And it means an increase in taxable resources much needed by governments to carry out the programs promulgated by the public sector of the economy.

Home ownership on a time-payment basis is one of the most effective and significant means of personal savings. The increasing accumulation of equity through home purchase is, in a sense, "forced" saving that would not in large part take place without the motivation of home ownership.

As the General Manager of the Commercial Bank of Ethiopia has so well stated: "the tempo of construction business tends to be a measure of economic activity. As in other developing countries, the building trade is a 'key industry' whose development might lead to steady progress in other sectors of the economy." *

The objectives and proposals of the Second Five Year Development Plan ** place emphasis on the need for savings and investment and provide quite a role for housing. The following objectives are particularly pertinent:

"(b) to change the existing technology by introducing modern machinery and equipment, and to raise the skill and productivity of labour,
(c) to raise the savings and investment potentials of the country by accelerating the growth of saving, with the view to attaining a self-sustained economic development;
(d) to improve living conditions and to raise the standard of living of the population according to growing possibilities and by a steady and continuous development of economy."

It is the judgment of the housing survey team that each and every recommendation made above is consistent with and complementary to the Second Five Year Plan. Modest as they are, if carried out, these recommendations would contribute significantly not only to the urgently needed improvement in housing conditions, but also to the strenthening and expansion of industry and finance in the developing economy of Ethiopia.

---in summary:

Housing is productive!

Housing increases the supply of capital; it does not compete for capital. Housing capitalizes each man's desire for his own home. Prospective home ownership increases the supply of capital. Repayment of existing loans plows "forced savings" back into more construction or other industry.

Housing strengthens the construction and consumer goods industries. It provides employment, creates new jobs and stimulates new industries. Each new home is a market for furniture and appliances unknown or unwanted in the slum.

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* Taffara Deguefe, "Credit Institutions in Ethiopia" Article contributed to Ethiopia Observer, Addis Ababa, Ethiopia, Dec. 1964, p.16. S..

** Second Five Year Development Plan, 1963-1967 G.C., Imperial Ethiopian Government, Addis Ababa, October, 1962.

Housing is productive socially. Each man compares his lot now with his lot last year and his hopes for next year. With his own house he has faith in a better tomorrow.

Housing is productive politically. The disinherited and poorly housed, regardless of their income, do not readily identify their interests with those in their society who spurn their goals and ambitions. Ownership of their own homes, however modest, undergirds their faith in their society and those who govern.

Housing means shelter, with dignity.

Housing means jobs, with independence.

Housing means profits, for development.

Housing means people--independent, energetic people--participating in community activities, democratic institutions, building and expanding a free society.

PART TWO

ETHIOPIA: THE LAND AND ITS PEOPLE

This introductory sketch of Ethiopia, prefacing consideration of the housing needs of Addis Ababa and other cities of the Empire, is not directed to officers of the Imperial Ethiopian Government, certainly, nor to Americans resident in Ethiopia, but to others whose various responsibilities will require their consideration of this report and its recommendations.

It is hoped that this sketch, neither comprehensive nor exhaustive will provide a bit of information to be sure; but more importantly, a feeling orientation for the magnificent antiquity of both the land and people of Ethiopia; an appreciative awareness of the creative and productive potential of nature's resources and people's imagination and determination; and a sympathetic consideration of the problems of today and the immediate future.

Chapter I

Geography and Climate

A rough traingular area of 457,000 square miles (equal to Texas and California or France and Spain combined) comprises the Empire of Ethiopia. Its southern base rests on the borders of Kenya and Somalia. The eastern side of its apex borders the Red Sea and its western side is bounded by the Sudan.

The northeast coastal areas, including the Danakil Depression, parts of which are 300 feet below sea level, the hottest place in the world, marks the beginning of the African portion of the Great Rift Valley which extends southward to Mozambique. The high central plateau, part of the East African Rift Plateau, ranges from 6,000 to 10,000 feet above sea level, with ranges and cratered cones as high as 15,000 feet. The northwest region of the plateau is the historic core of Ethiopia, about two-thirds of the land area, and the location of Addis Ababa. Farther north is Lake Tana, the source of the Blue Nile.

Most of the major cities of Ethiopia are located on the plateaus with elevations between 7,000 and 9,000 feet. Others, excepting Massawa on the Red Sea, have elevations between 3,500 and 6,000 feet.

Above 8,000 feet the temperature is cool; even in the hottest months seldom above a mean of 60° F and the air is thin. The most densely populated and productive areas are in the 5,000 to 8,000 feet altitudes which are rich prairies dotted with forests. The rainy season of the plateau is mid-June to mid-September; the dry season

prevails during the rest of the year. Some areas have "small rains" in April and May. Rainfall averages from 2 inches in the Danakil Desert to 80 inches in the Gore area of western Ethiopia; 48 inches in Addis Ababa, 20 inches in Asmara.

People in the major cities of Ethiopia need shelter from rains three to five months of the year and from cool but not cold weather during the evenings and nights most of the year.

Chapter II

History

Herodotus described Ethiopia in his historical writings 2,500 B.C. and the country was known to early Hebrew chroniclers of the Bible.

Intrigued by stories told by her Father, Makeda, Queen of Sheba (Yemen and Ethiopia) journeyed to visit King Solomon in Jerusalem about 1006 B.C. Her visit is recorded in the Book of Kings. After her return she gave birth to Solomon's son, Menelik, who was sent to his Father for his education. He became Emperor Menelik I, founder of the Solomonic dynasty of which His Imperial Majesty, Emperor Haile Selassie I, is the 225th monarch.

This Arabic-Ethiopian kingdom of semetic and cushitic peoples was ruled from Axum, located at the northern end of the central plateau region. Its pressure against Egypt was felt by the Mediterranean world of the Greeks and Romans. The record of this period is preserved on the very remarkable monolithic obelisks still standing at Axum. Their erection to heights of 70-110 feet, their sculpturing and decoration in relief evidence extraordinary technical skills.

In the 4th century of the Christian era, Emperor Ezana was converted to Christianity by two shipwrecked boys who had been rescued by Ezana's Father. Because of their later reports to the Patriarch of Alexandria, the Ethiopian Christians became associated with the Alexandrian Coptic Church. One of the two, Trumentius of Tyre, was appointed Bishop of Ethiopia by Patriarch Athanasius of Alexandria.

Militant Islam, arising in Arabia in the 7th century eclipsed the power and position of the Axumite kings. The period of 7th to 13th centuries is known as the Ethiopian Dark Ages. The Solomonic line was interrupted by eleven sovereigns of the Zagwa dynasty.

The Cathedral at Axum and the monolithic churches at Lalibela were products of this period. Interiors of the churches at Lalibela are hollowed out of rock and decoratively and ingeniously carved with varieties of vaulted roofs and complex arches. They are said to be among the most interesting architecture of the Christian world.

Emperor Tekune Amlak restored the Solomonic dynasty in 1270, the beginning of the "Middle Period" which lasted till 1632. Perhaps the most able ruler between Ezana of Axum and Menelik II, was Zara Yakob, 1434-68. He defeated the Sidamo peoples, pushing up from the South, and instituted administrative and ecclesiastical reforms including the limitation of the powers of local chiefs or rases who had made the restoration of central governmental authority impossible.

During the 15th century, Europe was hearing tales about Prester John (Presbytr John) rex et sacerdos, king and priest, who ruled a Christian kingdom, somewhere in or near India, later identified as Ethiopia. Indeed there seems to have been correspondence between him and Pope Alexander.

Islam revived its militancy with the Ottoman conquests beginning early in the 16th century. Portuguese troops came to the assistance of the Ethiopians in 1541 under Christopher de Gama, brother of the explorer, Vasco. But the Turks defeated the combined forces of the Portuguese and Ethiopians, killing Christopher de Gama and capturing the Red Sea port of Massawa. This isolated Ethiopia from Europe and the affairs of that Age of Discovery and Expansion. This isolation and Galla invasions disorganized government and resulted in another breakdown of the monarchy.

Egyptian aggressions and European pressure restored a degree of Ethiopian unity early in the 19th century. Theodore II, 1855-68, restored the power of the Emperor and, for a period, dealt effectively with British and French interests.

Perhaps his most important contribution was imprisoning, thus preserving, young Prince Menelik who, in 1889 became Emperor Menelik II and began the processes of modernizing and unifying his territories.

Emperor Menelik II was succeeded after his death in 1913, by his grandson, Lidj Iyasu, who was deposed in 1916. Menelik's daughter became Empress Zauditu, and her cousin, then Regent, Ras Tafari Makonnen was proclaimed her heir and successor. After the death of the Empress in 1930, Ras Tafari Makonnen was crowned Emperor Haile Selassie I.

The Emperor's reign was interrupted in 1935 by the invasion of Mussolini's Italian forces which swept through the country, taking Addis Ababa on May 5th. The Emperor took his case to the League of Nations. The League did not, or could not act, so the Emperor went into exile in England.

After Italy joined Hitler's Germany in attacking France, British troops moved against the Italian forces in Ethiopia. Five years to the day, after Addis Ababa fell, May 5, 1941, the Emperor returned to his capitol. The period of Italian occupation had so destroyed the power of local rases that any semblance of government had to flow from the Emperor as sovereign of all of Ethiopia. His Majesty's efforts since

World War II to restore government, educate his people, bring industry with its jobs and produce, and unite his country with roads, airlines and rapid communication have been remarkable indeed.

Italian Eritrea was placed under the protectorate of Ethiopia by the United Nations after the war. In 1952 it was federated with Ethiopia. Ten years later, by vote of the Eritrean National Assembly, the Federation was dissolved and Eritrea became a province of Ethiopia.

During these recent years, Ethiopia has taken its place in the community of nations. It was an original signator of the United Nations charter. It is now the seat of the United Nations Economic Commission for Africa (UNECA) and the Organization for African Unity (OAU). Ethiopian batallions have served the United Nations with distinction in Korea and the Congo.

Africa Hall, headquarters of UNECA and OAU is, in a sense, the capitol of Africa. Its distinctive architectural conception and startling stained glass windows remind Ethiopians that they have a distinguished tradition as artists and builders.

History of Addis Ababa

Menelik II, who opened the doors of Ethiopia to the modern world, looked for the lost site of an ancient capital to be the seat of his empire. His father, Sahle Sellaissie had discovered a ruined church in 1843 at Finfini, ea ' of the warm springs of Fil ha which are now a long block from the new Ethiopia Hotel of Addis Ababa.

In 1881, Menelik discovered the ruins of an old capital city, Entoto, believed to have been built by King Dawit (1381-1410) on the upper slope of Mount Etoto, beyond the present site of the American Embassy.

There he established his camp in 1883 and his Queen built churches. But Entoto was poorly situated. It was cold and windy because of its altitude and it was difficult to get food and wood in sufficient quantities. His rases, camped an hour's mule ride south, near Filwoha, were much more comfortable.

Queen Taitu spent much of her time at Filwoha living in a tent. By 1887 the frail Queen had built her residence there and the surrounding area was apportioned to important persons.

Water was piped from a spring near Entoto in 1894 by a Swiss Engineer, Alfred Ily who was rewarded by a concession for establishing a railway company, the beginning of the Addis Ababa-Djibouti line.

Menelik's famous victory over Italian invaders at Adawa, March 1, 1896, not only consolidated his position politically but provided him with Italian prisoners, fairly skilled workers, who were put to useful work building Addis Ababa.

Electric lights were installed in the palace by 1905. Ten years later the palace compound measured 2 x 1½ kilometers with 50 buildings including a treasury, court, churches, saddlery, smithy, pharmacy, mint, arsenal, food and wine cellars, menagerie and zoo - all employing 6,000-8,000 persons. Scattered about the hills and valleys nearby in an area about 7 x 8 kilometers were the stockaded clusters of houses and huts of nobles and favorites of the Sovereign.

As early as 1902, advisers had warned Menelik that it would be impossible to sustain the city at its location. But anticipating the economic developers, he built roads into the country side and the essential supplies of food and wood flowed into his city.

A sizeable market developed along the ancient caravan route from Central Africa to the Red Sea-what is now Ambo Road. Grains and spices, peppers and condiments from every corner of the kingdom, coffee from Harrar and Lake Tana, cotton from the banks of the Blue Nile, gold from Beri Shangel-all were traded at the market at Addis Ababa.

Trading was done in a babel of tongues - Amharic, Arabic, French and Italian being the major languages.

Menelik built a 2400 meter circular race track in 1903, a bank and hotel in 1907, a school, hospital, printing press and hydro-electric plant nearby, by 1911.

By 1912 there were about 200 European style houses built by Indians and Greeks, 14,000 Ethiopian Tukuls and 2,000 tents. Corrugated iron roofing, 555 tons, had been imported for roofs.

In 1908 land near the market cost ¼ to 1 thaler per square meter and a piastre (1/16 thaler) on the edge of the city. (One Maria Theresa thaler or dollar had silver content equal to about E$1.00 or U.S.$0.40). By 1930 land prices had inflated to 5 - 8 thalers near the market and to ½ to 1 thaler on the edge of the city.

In that booming first decade-and-a-half of the century, a one room tukul could be built for 10 - 20 thalers (US$4.00 - 8.00), a more comfortable one for 100 - 200 thalers and a princely tukul with a half a dozen rooms for 500 - 1000 thalers. European houses built of stone with metal roofs cost 2,000 to 4,000 thalers.

Title Deeds were issued for land, beginning in 1908. By 1912 the Bank of Abyssina was mortgaging land for which title deeds were required.

Singer Sewing Machine Co. opened a branch in Addis Ababa in 1909 and sold hundreds of machines for 150 thalers (US$60) on long term installment credit.

By 1935, Addis Ababa had a population of about 100,000. Streets, schools, hospitals and a new palace had been built. Part of the city had piped water.

But much remained to be done including street lighting and garbage collection. Hyenas and wild dogs were the scavangers of the city. 3/

Then came the Italian attack, occupation, World War II, liberation, the return of Emperor Haile Selassie I, and British occupation.

During Italian occupation two city plans were prepared, segregating ethnic and religious groups; quite unacceptable to Ethiopian administrators. Sir Patrick Abercrombie completed a new plan after the war envisioning the establishment of satellite towns. Although approved in 1954, it was implemented only to a limited extent.

Today, some 500,000 people live in Addis Ababa on 218 square kilometers, an average of 2,350 per square kilometer, housed almost entirely in single story buildings. Two of the 10 Districts of the city, Arada and Teklehaymanot, have approximately 7,000 per square kilometer and two more, Gulele and Mekakelegra, approximately 5,000 per square kilometer. Three districts on the rural edges of the city have 500 - 800.

Americans desiring to conceptualize this density may compare Addis Ababa's 2,350 per square kilometer to Washington, D.C.'s 5,200, Chicago's 7,500 and Cleveland's 5,000 with a large proportion of the people in high rise apartments of which Addis Ababa has few.

Chapter III

Peoples of Ethiopia-Socio-Political Situation

No census has been taken of the people of Ethiopia but most estimates place the population between 20 and 22 million people, the third largest in Africa. Some estimates are as low as 17 million. Ninety-five percent of the people are rural.

The shrunken world, interdependent community of nations and the imagination and determinations of Emperors Menelik II and Haile Selassie I have projected the people of Ethiopia a patriarchal society, not unlike those of Biblical times, into the complexities of the 20th century in little more than half a century.

Community and Nation

Effective functioning of a modern state requires that its people share something more than common boundaries; they must have a mutual sense of belonging, of sharing certain national purposes and of giving loyalty to commonly held goals-a sense of community. Ethiopia has not yet developed that sense of community. Reasons have to do with ethnic, linguistic, regional, tribal and religious differences.

The peoples of Ethiopia speak 200 dialects of 70 languages, profess two major faiths and retain customs of ancient local religions. Ethnic groups and tribalism, as well as language, have prevented the development of any genuine sense of an Ethiopian community in its social or political sense. However, its heterogeneity is not really as diverse as these statistics might indicate. Three major groups tend to dominate affairs-Amharas, Tigrais and Gallas. The Amharas and Tigrais are both Coptic Christian and together comprise about 35% of the population. The Gallas, 40% of the population are largely Muslim except those in Shoa Province.

Lack of roads, communications and the rugged escarpments have all isolated minor tribal groups and some major regions. As late as twenty years ago, the Sidamos of the southern provinces, rebelled against the power of the Emperor's central government.

The power of local chiefs, rases, governors, as the case might have been, found in the isolated areas also prevented any genuine identification of the people with the Empire of Ethiopia. This impediment to community - a sense of all belonging to a nation-state- - largely removed by the consequences of the Italian occupation and the disruptions of World War II. Development of roads, telegraph, telephone, radio, television and Ethiopian Airlines have done much to undermine tribal regionalism.

"Ethiopianism" as a tradition and sentiment shared and celebrated by all nationals will emerge out of institutions and habits of typical Ethiopian mutual associations, of which there are many.

Loyalties given to, and identifications with, the extended family and the clan or tribe, will be enlarged to include Ethiopia as a nation-state, a community of people whose well-being and security are interdependent.

Other mutual associations in which Ethiopians have lived and worked will provide the tradition and motivation for mutual, cooperative activities-economic, political and social.

Land ownership among many of the groups in the northern part of Ethiopia is communal or tribal. Where this is true, the sense of belonging to a mutually interdependent society is great.

Still more specific forms of mutual association are:

<u>Ukub</u> (or Ikib) - a kind of credit union in which each member makes a periodic contribution and, in turn, each member receives the pot of funds collected from all. This is now found among the sophisticated young elite of government ministries. It is a kind of forced savings on a cooperative basis.

Idder - a welfare and funeral cooperative in which periodic contributions are made to the cheif of the association from which payments are made to the needy or for burial expenses, at which time services are also contributed.

Mahber - a kind of social club for the mutual celebration of the feast day of a saint-sharing of invitations for food and drink.

Senbete - a church-supper society in which members living around a church compound prepare food in turn each Sunday.

Debo - a womens club in which the members help each other in their weaving, cooking and household activities.

In the "Addis Ababa Social Structure Survey" (1960) of 600 families in six selected districts of the city, investigators found that 64 per cent of the families belonged to one or more of the groups listed above or to the Boy Scouts, Women's Welfare Association, recreational or religious groups. 2/

Ethiopians are "joiners". They work and play together. Those anthropological observers who have commented upon suspicion and "clanishness" among Ethiopians have truly described that side of tribalism which has until recently characterized too much of Ethiopian political and social history. But tribalism is a product of segregation, self-protection and the hard necessities of an earlier period of history.

Such descriptions, standing alone, do not characterize the intra-group relationships which, in some form, make up the warm, sustaining nexus binding Ethiopians to each other. Out of these traditional forms patterns of mutual, cooperative activity are emerging as people live, study and work together. These are the life-giving roots of "Ethiopianism" - that sense of belonging together in a modern nation-state and of participating in the larger community of nations of all peoples.

Government

The power which holds Ethiopia together as a viable, functioning entity is the person, position and prerogatives of the Emperor. Indeed, the Emperor of Ethiopia is the one man in Africa who commands the attention of all others.

In modern times Emperors Theodore and Menelik II had to reunite the territories under absolute control of local or provincial chiefs, rases, by military force. Eclipse of their power during the 1935-45 period and later assignment of their services to posts in the central government in Addis Ababa accelerated the development of central government authority.

However, their influence and power in their own local areas remains very strong as does that of the Ethiopian Orthodox Church throughout the Christian Provinces.

Ethiopia's constitutional tradition derives from the history of the Ethiopian kingdoms. Its documentary base is in the Fetha Nagast (Book of Laws) and the Kebra Nagast (a chronicle).

Soon after his crowning, Emperor Haile Selassie I proclaimed a constitution which provided for a bicameral legislature. In 1955 the Emperor proclaimed a revised Consitution. Soon thereafter the first election was held in Ethiopia for election of 251 members of the Chamber of Deputies.

Members of the Senate (125) are appointed by the Emperor, as are the Ministers who make up His Government. The Council of Ministers functions as a deliberative and executive body. The Crown Council is composed of advisers to the Emperor-members of the royal family, the Patriarch of the Church and appointed senior officials.

An independent judiciary, members of which are appointed by the Emperor, is comprised of a High Court and several divisions.

The 14 provinces, including Eritrea, are headed by a Governor appointed by the Emperor.

Education

Ethiopia has a young population. Its average age is estimated at 20-21 years. In very rough figures about one sixth are pre-school age; and one third of school age.

In this school year there are approximately 340,000 in elementary schools (grades 1-6); 18,000 in secondary schools (grades 7-12); 1,700 in the various colleges of the University and 1,200 studying abroad.

Of the relevant school age population groups, about 10 percent are in elementary school and 6½-7 percent are in elementary and secondary schools. Teaching in the secondary schools are 340 young Americans, Peace Corps Volunteers.

Of the total population, about 1.6 percent are in some kind of educational institution. A comparable figure for the United States is 24.7 percent.

Functional literacy, a retained, continuing ability to read and write - does not exceed 4 percent.

While experienced American observers know well that literacy is not to be equated with wisdom and that all societies have their own methods of transmitting lessons they have learned; participation in the modern world of industry, trade and effective international relationships, does demand immediacy of communication which is possible only with an educated populace.

Ethiopia shall have to assiduously devote its resources to teaching its children for 50-100 years before they can participate with any fullness or reward in the modern world of affairs. American experience in the Philippines may provide some estimate of the time and resources which must be invested to accomplish the job. Today, approximately 35 percent of the total budget of the Central Government of the Philippines is spent on education. The cost for Ethiopia will be huge amounts of money and the devoted lives of thousands of its citizens, spent in classrooms throughout the country.

Ethiopians are preparing to meet these costs of money and personnel. The newly instituted National Service Program will place all university students who have completed their third year in schools for one year's service before they return for their fourth and final year at the university. Thirty-five high schools are being converted to general or comprehensive schools. Steps are being taken to expand the university from present capacity of 1,500 to 4,500 in 1972 and 5,500 by 1980, involving an increase in budget from $5 million to $15 million in 1972.

Urbanization

There are only six cities of any size in Ethiopia. With the exception of Asmara, they have grown considerably during the last few years as small industries have been introduced. The in-migration of Ethiopians to Asmara has little more than off-set the exodus of Italians. Rough estimates of their population is indicated below:

Addis Ababa	510,000
Asmara	130,000
Dire Dawa	33,000
Dessie	43,000
Harar	38,000
Massawa	30,000

While urbanization will never concern 95 percent of the people now living in Ethiopia; it is the crux of the psychological, social and economic problems of those who are the concern of this housing team.

Urbanization-moving from the provinces to Addis Ababa or one of the other cities of Ethiopia-requires a change in living habits that is frequently traumatic in its personal consequences and violent in its social affects.

Immediately after moving to the city the warm sustaining relationships of the extended family begin to disintegrate, simply because they must. Living on wages, though large compared to the cash needs of rural life, does not permit the spreading of economic responsibilities to cousins, nephews and ancient aunts, no matter how beloved or deserving. Soon those relationships become parasitical burdens.

So the solidarity of the old rural family simply explodes despite best efforts to maintain it. And with it goes the whole structure of paternal authority and responsibility.

"Detribalization" is the name assigned by sociologists to some elements of this process. Certainly the meaningful relationships of the tribe or clan become neutral or negative values in the crowded streets of Addis Ababa.

And the thatched tukul or the mud-daubed chica house, more than comfortable out on the range, in the grain fields or small farming town, becomes a disease infested detriment to health and safety when crowded among another thousand in the inner city of Addis Ababa. The disposal of garbage and human waste, so simple on the prairies or hillside, becomes an impossible problem in the city - threatening the health and life, not only of self, but of every resident of the municipality.

Old habits of thinking and acting have to change! Traumatic as the experience may be, the city does free its trapped residents from age old prejudices and traditions; makes them more plastic and adjustable and opens the windows of a new world to them.

Transition

Transition from a simple agrarian life, not unlike that of Biblical Hebrews of 4,000 years ago, to the demands of a modern world from which there is no escape for Ethiopian, European or American, is truly a valley of torment through which individuals and whole nations must pass. Simply because there is no going back!

Persons

The consequences of this transition are, of course, first felt as personal problems. They are intense for that small but precious group of young educated Ethiopians who do indeed, carry on their shoulders the future of their country.

This group began coming into existence about 1955. Sociologists will probably use this date as the beginning of the formation of a middle class of professionals and executives in government and business who provide the leadership for the work and affairs of Ethiopia

Many of them have returned from advanced education in Europe and the United States. They have come to expect a level of performance in their own work which would not have been known to them otherwise. They also have expectations which are new to them, strange to their paternalistic elders and sometimes regarded as a threat to more traditionalistic persons, whose values are rooted in quite a different age.

Family

Social consequences of transition are first felt in family arrangements and relationships. During the last four years these have been studied by expert professionals, Ethiopian, U.N. and USAID Consultants.

Four kinds of marriage have traditionally existed. Relating the distinctions to terms commonly understood by Americans, these may be called: (1) Church marriage with communion; (2) Church marriage without communion; (3) Civil contract marriage; and (4) Common Law marriage. Each form has its legally enforceable obligations. Except for the first, divorce is quite readily obtainable.

According to at least three professionally reliable reports, current divorce rates among the Amharas is 60 percent or more. The most important reason for this startling figure is the fact that too many marriages arranged at an early age by parents have become intolerable to the parties concerned as the difference between the education of the man and woman becomes greater and greater.

Consequences of the divorce rate in terms of the children is causing serious concern in government and among responsible Ethiopian leaders. Juvenile delinquency resulting therefrom is the concern and responsibility of the Social Welfare Department of the Ministry of Community Development. 3/

Another startling fact is the degree to which young educated Ethiopian men are delaying their marriage either because they cannot find suitable companions among the educated women of their age group; or because they cannot quite accept the freedom and competence of educated companionable women. The median age for marriage among the better educated men is in the 30's.

Still another reason given by young educated bachelors is their ingrained expectation of owning a house before their marriage. To what extent this actually delays their marriage or is an excuse for remaining a bachelor is unknown and unknowable.

Values

Periods of rapid transition inevitably take their toll of values held by individuals and instiutionalized by society. The Cornell University ten-year study of the incidence of psychiatric disorder under the direction of social psychiatrist, anthropologist, Dr. Alexander

Leighton has established that the rapid increase of emotional and mental illness during periods of rapid change is a universal constant. Whether in Nova Scotia, Manhattan, Mexico, Peru, Nigeria or other places about the world, this is true. The old forms and molds simply do not hold meaning for people.

Again, there is a fateful inevitability about this phenomena of human societies. But its consequences can be mitigated by those responsible for the articulation, celebration, transmission and effective application of values-professional educators, social workers, priests, prophets and those other political and social leaders with whom others identify.

These have been suggestions only of some of the socio-political problems which characterize contemporary Ethiopian society. They are poignantly real to Ethiopians. He who would be useful needs must appreciate them.

Chapter IV

People & Resources - Economy of Ethiopia

Casual observers and economic analysts agree that the economic potentials in Ethiopia are considerable. Resources of the fields, forests and mines could add substantially to the well-being of all Ethiopians.

Poverty in the rural areas is not due to lack of resources nor to an over-abundance of people but to the lack of skills and techniques -an educated rural population-and to those archaic institutional arrangements which continue patriarchal-dependency relationships. Today, Ethiopia's farmers do not participate in the money economy except those who sell a few beans of wild coffee for their cash needs or are employed on the cotton plantations.

The 800,000 - 1,000,000 Ethiopians who live in the cities and larger towns provide government services and comprise the labor force for rapidly multiplying industrial and commercial activities.

The Gross National Product for 1964 has been estimated at approximately Eth.$125 or US$50, a total of Eth.$2.5 billion.

Agriculture

Meadows, forests and fields are the homes for 95 percent of all Ethiopians. They raise grain, fruit, vegetables and livestock for their subsistence. Only a small portion of their product ever gets to the markets, partly because so few others need it and partly because roads from many farming areas to urban markets are practically non-existent. But the land is fertile and the living is good for those who toil upon it.

Exceptions are coffee, which provides the bulk of Ethiopia's foreign exchange earnings and livestock products - meat, hides and live animals.

Land

It is roughly estimated that 50 percent of the land is in permanent meadows and pastures in the higher altitudes of the plateau; 10 percent cultivated, including orchards and forests 4 percent; unused but potentially productive 6 percent and 30 percent wasteland.

Only a small portion of the land is actually owned by the operator. This does not imply, as it would most other places in the world, that most farmers are tenants of a personal landlord. Actually, most of the agricultural land, in the northern provinces, is communally held with rights protected for each member of the group. Crown or state lands also provide insured rights for the tenant-operators, under the supervision and control of regional chiefs or governors. Despite the absence of the "absentee landlord" per se, abuses in control, rental and taxation have multiplied over the centuries of custom and law.

Reform of these practices is essential to increase agricultural production, to enable individual farm families to have the resources for improving their own situation, and to bring ever increasing numbers of persons into the cash economy.

Two bills sponsored by the Emperor and his appropriate Ministers are under consideration. Both are designed to reform land utilization and increase the economic and social benefits for the farmers themselves.

The first, already approved by the Chamber of Deputies, would regulate the rental-in-kind which would have to be paid by the farmer to 25% to 50% depending upon his providing equipment and seeds. This bill is still in the Senate.

The second, which has passed both Houses, has not yet been promulgated, would reform the tax system by eliminating the middle-man function of those to whom supervisory and economic rights of crown or state lands have been assigned. Strictly speaking such persons are not landlords because proprietory rights in the land do not reside in them. But they have had income rights as reward for past services and present supervisory functions.

Still another problem regarding land utilization remains exceedingly difficult for the farmers themselves-land titles. In the regions where individual proprietary rights to land have been established, the rights of present occupant-operators are clouded by the failure to record the proprietorship of successors - sometimes for generations. So frequently when an ambitious young farmer substantially improves production on land which he believes to be his, unknown cousins, uncles and aunts appear to claim their lawful share of what is rightfully theirs by inheritance.

An example may be helpful. A dozen families on a plot of approximately 10 hectares bordering a lake near the Agricultural College at Alemaya organized themselves into a cooperative and installed an irrigation system with a loan of Eth.$16,000 and increased their production and well-being dramatically. Now, about two years later, there are over 40 claimants to their share of the land-to which they are probably legally entitled by inheritance.

There is a legal procedure involving public notice and court action for clearing land titles. But these steps are beyond the comprehension of the uneducated folk on the land and quite beyond their financial ability. Facilitation of such action is required to protect those actually operating the farms. Steps should also be taken to limit the fragmentation of land, by succession or inheritance, particularly that which is intensively cultivated. The simplest form would be to require settlement among heirs without fragmentation within a reasonable time after succession, and registration of titles or de facto succession to whomever of the heirs remained as occupant-operator.

This problem of land titles arising from succession, also complicates the already difficult problems of urbanization in Addis Ababa and other cities.

Coffee, which came originally from Ethiopia's Kaffa Province, is harvested from trees growing wild. Beans are picked by small farmers to meet their cash needs and sold to local buyers in the Jimma and Harar areas where they are prepared for local use and export.

During the last coffee year, October 1, 1963 - September 30, 1964, Ethiopia exported 75,642 metric tons which earned Eth.$168.2 million (US$67.3 million) over 50 percent of its foreign exchange earnings. The United States purchased 56,674 metric tons or 75 percent of the total.

Various duties and taxes on the coffee export produce a large fraction of the operating budget of the Imperial Ethiopian Government.

Animal Products are produced in abundance on the highlands of the plateau. Ethiopia ranks first in Africa in numbers of cattle and goats and second in sheep and hogs. Ethiopians not only eat more beef-30 - 40 pounds per year-than their neighbors, but export live cattle, canned and frozen beef to Italy and Israel in large quantities. New canning and freezing facilities, recently installed, are expected to double or triple the export of meat products.

This will also increase the already substantial export of hides, (about 2 million) sheepskins and goatskins (about 4 million).

Stimulation of the livestock industry in this manner should also increase the production of milk products and reduce importation (now about Eth.$600,000).

Cereals and Other Crops provide the bulk of food for Ethiopians and small quantities of surplus for export-pulses, oilseeds, chat. Teff is the basic breadgrain. Barley, wheat, corn and grain sorghum are produced in substantial quantities. Pulses, horse beans, haricot beans, lentils, peas-are also important food crops and are exported. Vegetable oils play an important part in the diet of Ethiopians. The most important are neug seed, linseed, rape seed and castor seed. Sugar production is estimated at 65,000 tons of which 13,000 tons are available for export.

Cotton production is now about 4,500 metric tons and is increasing rapidly. The spindle capacity of the cotton mills has increased to over 110,000. Production of cotton would have to double for Ethiopia to be self-sufficient.

Chat, the leaves of which are chewed as a stimulant, is raised for local use and export to other Muslim areas earning about Eth.$6 million annually.

False banana, sisal, sansevieria and dum nut fiber largely fulfill Ethiopia's need for fiber bags and cordage. Beriberi pepper, saffron, cardamon, tamarind, sage, mustardseed and caraway seed grow in sufficient quantity for local needs and some export. Some tea is grown for local consumption. Tobacco is grown for domestic requirements but its quality must be improved before imports can be displaced. Civet, aromatic gums, incense and aromatic woods are exported in fairly large quantities relative to world demand but they are of limited significance in the economy as a whole.

Mining

Ethiopia's mineral resources may be as great as some reports would indicate but the extensive volcanic activity of recent geological periods may have made them inaccessible except in the lowlands, where exploration continues.

Gold, cement and salt are the major mineral products at this time. Alluvial deposits of gold in Sidamo and Ilubaber Provinces produce from 10,000 to 60,000 ounces per year. Marine salt is produced at Massawa and Assab and rock salt is mined in the Danakil Depression. Two cement factories now in production and another soon to begin production will have an annual capacity of 176,000 metric tons.

Iron ore may be found in many parts of Ethiopia but the only commercial deposits known thus far are located in Kaffa and Eritrea. Lack of transportation has thus far precluded serious consideration of exploiting these deposits.

Small quantities of platinum are mined at Yubdo and mica deposits are worked intermittently in Harrar Province. There are persistent reports of high-grade ruby mica and beryl ores but no commercial finds have been made. Copper has been smelted locally for many years but no commercial volume seems to be available.

The Ralph M. Parsons Potash Consortium Company is exploring the potash deposits in the Danakil Depression and is expected to go into commercial exploitation of the deposits in 1965-66 with a Eth.$40 million investment. They found and extracted 20,000 tons of high-grade manganese during a four year period near Enkafala.

Ten years of petroleum exploration by several firms have failed to locate any oil deposits. Some lignite has been found but not in quantities of sufficient quality to be of interest.

Industry

Industrial activity has been growing rapidly during the last few years and is becoming increasingly diversified but it accounts for only about 5% of the GNP. In 1962, the total value of industrial production in Ethiopia was Eth.$116 million. Wages and salaries for 32,584 employees totalled Eth.$21,303,000.

The State Bank of Ethiopia reported that industrial production increased 30 percent during 1963. Textiles, sugar, beverages, tobacco, leather shoes and food processing accounted for the increase. With the substantial investments made in 1964, it is likely that industrial production in this calendar year will approach Eth.$160 million.

Production of electrical power increased 20%. Completion of two new hydroelectric stations near Koka Dam will substantially increase the power available to an expected 270,000 kilovolt-amperes and an annual production capability of 660 million kilowat-hours.

Work continues on an oil refinery at Assab, at Eth.$12 million investment. Parsons-Whittmore is involved with the Ethiopian Government in the construction of a paper-pulp mill, an Eth.$8 million investment.

A new foreign investment law seems to be interesting potential investors in Ethiopia. Another Eth.$13.5 million has been invested in smaller but significant industrial activities.

Transportation & Communication

Roads

Ethiopia has about 3,800 miles of surfaced, all-weather roads and 6,000 miles of secondary roads. Mule, donkey or camel provide transportation off these roads. Three IBRD loans totalling US$33.2 million and two U.S. loans totalling US$7.6 million have been made in support of the highway development program

Work is progressing on a 160 mile road linking Walidia, Debra Tabor and Addis Zemen and then (over existing roads) to Bahar Dar and Gondar. This will permit direct travel into the cattle rich area near Gondar and the proposed industrial center of Bahar Dar and link these areas with the Red Sea port of Assab, via the historic site of Lalibela. Another major road is planned to link Awash and Tendaho which would reduce travel time between Addis Ababa and Assab by 22 hours, greatly facilitating truck travel.

Railroads

Two railroads operate in Ethiopia. One links Addis Ababa with Djibouti, French Somaliland-486 miles of meter gauge. Major extension being planned would extend it 186 miles into Sidamo Province. The other links Asmara to the port of Massawa-191 miles of 95-centimeter gauge.

Airlines

Ethiopian Airlines, wholly government owned, has been operated under a management contract by TWA since its founding in 1946. It now links 34 towns and cities of Ethiopia - many of them inaccessible otherwise. It has three jet flights weekly through Khartoum to Accra and Lagos; Taiz and Aden on the Red Sea; Cairo, Athens, Rome, Madrid and Frankfurt. It is one of the few national airlines of the new countries which operates in the black. EAL has the only facility for complete overhaul of four engine jet aircraft in Africa. It is certified by U.S. and U.K. aviation authorities and is rated among the top ten in the world by the manufacturer--Boeing Aircraft. EAL does overhaul work on contract for half a dozen or more airlines with a total labor force of 1,600 men and women, 92 percent of whom are Ethiopian. Wise management and intensive training of personnel have made EAL a showpiece of what can be done in Ethiopia.

Telecommunications

The Imperial Board of Telecommunications of Ethiopia operates a nationwide system of line and radio-telephone and provides cable service to the outside world, with Telex to Europe and the U.S.

Television service was inaugurated in Addis Ababa last November 2. There are now over 1,000 receivers in service; 2,000 more will be in service during this year; 8,000 by 1970.

Radio broadcasting is from a 100,000 watt transmitter in Addis Ababa on both medium and short wave. Daily transmissions are in Amharic, English, French, Arabic and Somali. The Lutheran World Federation operates a special broadcasting service.

Exports

During 1963, exports increased 10 percent as compared to the previous year, 15.1 percent compared to 1960, to a total of approximately Eth.$222.5 million. This reflected a continued expansion in agricultural production. During the first three quarters of 1964 total exports were approximately Eth.$235.2 million. U.S. coffee prices were unusually high during this time.

Coffee, oilseeds, hides and skins, pulses and chat continued to be the major foreign exhange earners. However, the meat processing industry was getting into operation during 1963, earning Eth.$1,890,000 with its tinned and frozen meats.

Imports

During 1963, actual payments for imports totalled Eth.$234.4 million, an increase of Eth.$42.2 million over the previous year due to increased expenditures for machinery and tools, (Eth.$9.4 million), building and electrical materials, (Eth.$8.8 million), and vehicles (Eth.$7.6 million). During the first three quarters of 1964 imports were Eth.$182.6 million. Major import items were textiles, vehicles and spare parts, machinery and tools, and chemicals.

Balance of Payments

Ethiopia has consistently had a trade deficit on goods and services account but for five of the last six years imports of foreign private and public capital have more than compensated for its trade deficit. Wise management of foreign investment, including development loans, and rapid increase of industrial production, particularily the processing of agricultural products, has resulted in a very favorable foreign exchange position.

During 1963, the deficit on physical trade alone was Eth.$13.9 million compared to Eth.$23.9 million for the previous year. Its deficit in the flow of goods and services Eth.$69.7 million compared to Eth.$66.5 million in the previous year. Capital movement showed a plus balance of Eth.$57.6 million.

Foreign exchange earnings for the first three quarters of 1964 were substantially above the previous year. As of September 30, 1964, foreign reserve holdings were Eth.$204.2 million, 20 percent over that of a year earlier. During the last quarter reserves fell to Eth.$190 million, being about 6½ months total foreign exchange payments or 9 months visible payments.

Money Supply

The basic monetary unit, the Ethiopian dollar (Eth.$) is based on 5.52 grains of fine gold, equivalent to U.S.$0.4025.

As of the end of 1964, there were Eth.$221.7 million of notes and coins in circulation and demand deposits of Eth.$87.7 million for a total of Eth.$309.4 million. Although there were no published figures of the gold and silver held as reserve, it is estimated that total reserves represented 92-94 percent of the money in circulation and 66-68 percent of the total money supply.

The money in circulation was about Eth.$10 per capita or U.S.$4. A per capita circulation of less than US$20 is regarded as one index of "poor" or "underdeveloped" countries. This indicates the magnitude of the development task facing Ethiopians. Per capita circulation for Egypt is about US$15 and for the United States, US$185.

Budget

The current budget of the Imperail Ethiopian Government anticipates revenues of Eth.$336.9 million. Direct taxes are expected to produce Eth.$58 million, indirect taxes Eth.$99 million, custom duties Eth.$82 million, and external loans and other assistance Eth.$56.6 million.

Expenditures, including Eth.$52 million for capital development, are approved for a total of Eth.$358.6 million; thus producing a deficit of Eth.$21.7 million. This unusual deficit financing represents Ethiopia's desire to accelerate the rate of economic and social progress. Careful fiscal management has prevented any price inflation. The wholesale price index of 98 is below the base period of 1958. Hence, this 6 percent deficit is not expected to create inflationary pressure; there are friends and advisers who wish it were larger.

Banking

As of January 1, 1964, the State Bank of Ethiopia was reorganized providing the creation of the National Bank of Ethiopia, (functioning as a central bank) and the Commercial Bank of Ethiopia, with branches in the major cities, providing short and medium term commercial loans.

A new private bank was organized during the last year, The Addis Ababa Bank, Share Company, with some foreign capital participation. Three older expatriate banks continue functions limited largely to the movement of foreign trade: Banco di Roma, Banco di Napoli and Banque de l'Indochine.

The Development Bank, a government corporation, was established in 1951 to provide long term credit for agricultural and industrial development.

The Investment Bank was established in 1963 for the purpose of accelerating industrial development through the device of government participation in the share capital of new enterprises which private investors hesitated to undertake. After such enterprises are established, government owned shares are then offered to the public.

The Imperial Savings and Home Ownership Public Association was established in 1962 for the purpose of encouraging savings and providing mortgage loans to home builders.

A more complete statement on the banking system is found in a very helpful article, "Credit Institutions in Ethiopia", by Ato Taffara Deguefe, General Manager of the Commercial Bank of Ethiopia, published in the Ethiopia Observer.

Credit Regulations issued by the National Bank of Ethiopia, pursuant to the Monetary and Banking Proclamation, 1963, provide that:

1. The standard rates of interest on advances, discounts and rediscounts are:

Discounts and re-discounts:	
Eligible paper covering exports	4½% per annum 4/
All other eligible paper	5 % " "
Advances:	
Eligible paper covering exports	4½% " "
All other eligible paper	5 % " "
Treasury Bills, I.E.G.	4½% " "

2. The Minimum rate of interest for different types of loans, advances, and other credit transactions shall be not less than 1% above the standard rates of interest.

3. The maximum rates of interest payable on various classes of deposits shall be:

Savings Deposits	4½% " "
Time Deposits	
Over 12 months	4½% " "
6 - 12 months	3½% " "
1 - 6 months	3 % " "

No interest may be paid on Demand Deposits.

4. Banks and other designated financial institutions are required to maintain on deposit with the National Bank a reserve balance equivalent to:

10% of their Demand Deposits, plus
5% of their Savings and Time Deposits.

5. Except with the prior approval of the Bank, no bank or other designated financial institution may extend credit to any one borrower in an amount which exceeds 10% of its paid in capital, general reserve fund and surplus.

6. No bank shall be licensed with paid in capital shares of less than Eth.$2 million.

7. Each licensed bank carrying on business in Ethiopia shall maintain liquid assets of not less than 25% of its short-term liabilities.

Non-Institutional Credit

Money lenders have been available since time began. In every developing country it is certain that they supply the credit needs of more persons--a larger percentage of the population--than commercial banks. Commercial banks are not available to most of the people in the rural areas. Also, the interest of commercial banks has been more in financing needs of traders, merchants and exporters for short-term transactions, than in providing "production credit" for farmers. And, of course, it is quite impossible for tenant farmers, the world around, to satisfy even reasonable collateral requirements.

Personnel of the Commercial Bank studied the non-institutional credit situation in areas surroudning their branch banks in 1963-64. They found that farmers, traders, truck and taxi drivers, retailers and salaried persons borrowed from available money-lenders, merchant-suppliers and landlords, for periods of 10 days to a year. 5/

They found that the cost of non-institutional credit varied greatly - from 30% to 200%, depending upon the kind of creditor, kind of borrower, purpose, amount and period of the loan. "It might be said that the prevailing interest rate (without taking into account other costs of this credit) amounts to 120% p.a."

Where a loan could be tied to a crop, the actual cost was sometimes as much as 900%. In at least one coffee region, merchants financed farmers by "futures". They advanced Eth.$10 in June for 100 lbs. of coffee to be delivered in December. In December the coffee price was Eth.$53 per 100 lbs.

Such interest rates are, of course, illegal. But enforceable by simply discounting a loan of larger amount - a Eth.$1000 for six months at 10% per month is simply a Eth.$1600 loan agreement. Brokers and guarantors must also have their cut - perhaps 5% of the loan.

Such credit is not just a phenomena of rural Ethiopia. It provides credit for most residents of Addis Ababa - perhaps 90 percent of them during a given year.

Economic Base for Housing as Industry

These descriptive indicators of the economy of Ethiopia demonstrate a very considerable rate of recent growth and development.

Need for housing and related facilities as well as the housing market, are analyzed and described in the following chapters. The present state of both the building industry and building materials industry is described in Chapter X.

Consideration at this point is directed to two questions:

1. Can the economy of Ethiopia support the activities of housing as industry?

2. Can the industrial activity of an expanded housing program contribute to continued economic growth of Ethiopia?

The survey team has reached a considered judgment that the answer to both questions is affirmative.

Potentials exist for basic industrial production, financial institutions, entrepreneunal ability and adequately skilled labor. The erection of government and other public buildings during the last 5-10 years and the installation of manufacturing plants and other public works have developed a reasonably competent force of 40,000 - 50,000 persons, many of whom could undertake large scale production of housing, given financing and training.

Discovery and implementation of certain institutional and financial arrangements suggested in the following chapters of this report will accelerate the development of housing as a significant part of the building industry.

Housing requires capital but as mortgages are paid, funds become available again for building or other industrial enterprises. It is capital of a revolving fund which is borrowed and repaid by home owners.

Housing as an industry does not draw heavily on foreign exchange. Indeed, it provides incentives and market for development of local building materials industries not only saving foreign exchange but providing employment for many workers removed from the building site.

The housing industry in Ethiopia is only in its infancy. It will develop out of the personal needs of individuals and the social necessities of municipalities but its contribution to the economic growth of Ethiopia will be very considerable.

PART THREE

HOUSING AND URBAN DEVELOPMENT

Chapter V

The Housing Situation

Addis Ababa

To those driving through the main thoroughfares of Addis Ababa, the city presents a sense of spaciousness. A substantial number of new public buildings, hospitals, and office buildings have been completed within recent years or are under construction in various parts of the central city. In the several business areas, streets are lined with small shops. Only occasionally does one see an apartment house or large group of dwellings. The effect is somewhat startling and one wonders where the some 500,000 inhabitants of Addis live. Only when leaving the main streets or driving through the outskirts does one discover the settlements often resembling small villages, which in fact many of them are, in which are located the homes of the majority of the people. These settlements are often not readily visible from the main streets because they are screened by walls, fences, shops, groves of eucalyptus trees or because they are situated on the sides of the valleys which lie between the ridges on which the principal thoroughfares are located.

Densities

These residential areas in the central part of the city have relatively high densities despite the fact that most of the houses are small single story structures either detached or in rows. According to the 1961 census,[6] while the average population density for Addis Ababa as a whole was only 2,035 persons per square kilometer, densities in the various districts of the Municipality ranged from a low of 432 persons to a high of 6,868 persons per square kilometer. Actually, three of the ten districts in Addis Ababa are beyond the urban area proper and contain sections of a rural character. If these three districts are excluded, the average density in the remainder of the city, containing 86 percent of the total population, is 3,920 persons per square kilometer.

The census does not report the actual number of dwelling-units but rather the number of households.* However the Municipal Tax Office reports that in 1965 there are 83,000 residential buildings in Addis Ababa, which according to rough calculations made by the survey team

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* A household was defined as a group of people who slept in the same or related quarters and who had common arrangements for meals.

probably represents about 130,000 dwelling units. In any case the census data do show that severe overcrowding exists on balance. For the city as a whole, the median density was 2.65 persons per room,* although 60 percent ofthe population were living at a density of less than 3 persons per room. (See Table 1) Nevertheless, only 4 percent of the population had more than one room per person. Furthermore, the median household was smaller than the median number of persons per room which indicates that in many cases more than one household shared the same accommodation. It was estimated on the basis of incomplete data that about 16 percent of the population were living in households which shared accommodations with other households.

In addition to the private households there were some 8,527 persons or less than 2 percent of the normal residential population living in institutions including hospitals, hotels, etc. and only 185 persons were classed as homeless. It was thought that the latter figure was probably somewhat low because the census was taken on New Year's Eve and many people may have been moving about who would normally have been sleeping in the open.

Although the census did not indicate information on the size of the dwellings occupied by households, two small sample surveys carried out in February and March of 1962 by the Research Section of the Ethio-Swedish Institute of Building Technology ** gives some clue to the crowded conditions under which a high percentage of families in Addis Ababa live.7/

The first of these surveys covered 220 households (789 persons) in the Teklehaymanot District which was the district with the second highest density of population (6,786 persons per square kilometer). It revealed that the average floor space used by 206 households was 23.58 square meters (excluding the kitchen which was generally in a separate structure). The average size of the household was 3.53 persons. Thus the average living space amounted to less than 6.7 square meters per person.

Of 212 households 30 lived in single rooms and 112 in 2 rooms. Only 70 used 3 rooms or more. The average number of rooms used was 2.28. Furthermore, 78 households shared one room each and 7 shared 2 rooms each. Eighteen of the households kept large domestic animals and in some cases the animals shared the household rooms.

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* Rooms included were living rooms, bedrooms, dining rooms, servants' quarters and kitchens as well as rooms used partly for living and partly for working purposes.

** Most often called and herinafter referred to as "The Building College"

Table 1

Proportion of Population Living at Specified Densities

Persons per Room	Percent
Less than 1 person	4.3
1-2 persons	27.5
2-3 persons	28.1
3-4 persons	16.8
4-5 persons	9.5
5-6 persons	5.6
6-7 persons	3.5
7-8 persons	2.0
8-9 persons	1.1
9-10 persons	0.7
10 or more persons	0.9

The second of these surveys was carried out in both the Teklehaymanot District (25 families) and in the Lideta District (10 families). In this group the average household size was 3.93 persons and ranged from 1 to 12. However, the average amount of floor space used by these households was somewhat greater, 30 square meters (with a range from 6 to 120 square meters), than was the case in the first survey which resulted in an average area of 7.6 square meters per person.

The average number of rooms used by these households was 2.63. Two and three rooms were the most common number used by these households (34.38 percent and 35.42 percent). As in the case of the first survey, some of these shared rooms with other households.

Type of Construction

The dwellings in Addis Ababa, in addition to being small and overcrowded, are usually of only moderately permanent construction. The walls of the vast majority of the houses are of "chica". According to the 1961 census, 90.4 percent of the households in Addis Ababa lived in houses with chica walls (see Table 2).

This type of construction consists of a framework of Eucalyptus poles set in the ground with split poles or poles of small diameter placed vertically in between the main supports, tied in place and in some cases diagonally braced. These are then plastered on both the inside and outside with a mixture of earth, (usually a red volcanic soil) straw and water which has been prepared in advance and allowed to "ferment" prior to putting in place. The walls are built up in several layers to a thickness of from 15 to 30 cm. and when well finished and painted or whitewashed present a substantial and attractive appearance. When properly built the walls seldom crack. If they are well built in the first place and constructed on stone or other masonry foundations to minimize damage at the base due to splashing and capillary moisture, and if the walls are protected by eaves from excessive rain, and if they are repaired when water damage does occur, they are reported to last up to 50 years. However, in too many cases the conditions for long life are not met and the buildings may deteriorate badly in 5 to 10 years. Another hazard to the life of these buildings is termites, which, although reportedly not present in substantial numbers in Addis Ababa, do cause serious damage when they attack the wood frame of the building.

The most common type of roof found in Addis Ababa now is corrugated galvanized iron supported on pole rafters or trusses which are also commonly made up of light poles rather than sawed lumber. Nevertheless thatched roofs, which are the most prevalent type of roof in the rural areas, are still found in Addis Ababa.

A high percentage of the floors in chica houses are of mud and are often below the level of the surrounding ground. This appears to be

Table 2

Percentage Distribution of Households by Class of Construction of Living Quarters

Class of Construction	Percentage of households with specified class of living quarters
1. Stone walls, metal or concrete roof with foundation	4.4
2. Chica walls, metal roof with foundation	38.7
3. Chica walls, metal roof with no foundation	41.9
4. Chica walls, thatched roof, no foundation	9.8
5. Others, not stated	5.2

one of the worst features and one that could easily be corrected by building up the floor and possibly stabilizing the earth with cement.

The first sample survey made by the Building College and mentioned earlier showed a somewhat higher incidence of households living in dwellings with chica walls (96.84 percent). Some 22 percent were in painted chica and 75 percent were in unpainted chica. About 75 percent of the households had metal roofs and 24 percent had thatched roofs. The houses of about 72 percent of the households had no ceiling and about 94 percent had mud flooring. Furthermore, nearly 60 percent of the household dwellings did not have any foundation except for the wooden poles set in the ground.

So much for the existing housing stock. While no data exists it is reported by the building College and others who are knowledgable in the building field, that a good deal of the new housing construction, particularly that for the middle and higher income families, utilizes more durable materials including brick, concrete block and stone. The latter is frequently used for foundations and sometimes for walls and there appears to be a substantial group of stone masons who are reasonably skilled.

Galvanized iron roofs have also supplanted almost entirely the thatched roofs so common in earlier days but still widely used in the rural areas.

Condition and Age of Dwellings

As was mentioned early when properly built and maintained the chica houses will last for a considerable period of time but according to this survey only about 8 percent of the households had repaired their walls in the previous 2 years and only about 7 percent had repaired walls, roofs and floors. It is not surprising then that the interviewers reported that 99 of the 222 household dwellings (44.6 percent) had walls in need of major repairs and 37.4 percent needed minor repairs or painting.

It is also not surprising that the average age of 103 of the houses (terrace houses were counted as a single unit) was only 10.81 years, because it is likely that many of the existing houses replaced earlier houses which through neglect had become uninhabitable.

Facilities for Dwellings

Relatively few Ethiopian households had water piped into the dwelling. For Addis Ababa as a whole this was 29.7 percent and varied by district from a low of 4.5 percent in Kerami which is somewhat rural in character to a high of 54.8 percent for Arado which is the most densely populated of the districts of Addis Ababa. On the other hand,

44.6 percent of the families had access to piped public water sources, so roughly 75 percent had what the census classes as a reasonably safe water supply. The remainder derived their supplies from private or public wells, streams or other sources.

The most critical lack is that of a community sewage disposal system. While the census did not include questions on various means of sewage disposal the first Sample Survey of Housing Conditions I and II showed that 20.36 percent of the households in the Teklehaymanot District had no means of taking care of human waste while 68.17 percent said that they used pit latrines. The remainder had other unspecified means of waste disposal. In the second smaller survey, out of the 96 households 55 reported having pit latrines while 38 did not have any means of waste disposal. Only 3 had a water closet in the dwelling.

In Addis Ababa, some 58 percent of the households had electricity for lighting while about 41 percent were without electricity. However, in the Teklehaymanot District only 38.29 percent used electricity and 59.91 percent used "gaz".

While there are no statistics it appears that a very high percentage of the families in Addis Ababa use wood and some charcoal for fuel. This, along with the traditional method of cooking injera, accounts for the fact that in the Teklehaymanot District, 92 of the 222 households cooked in separate, private kitchens and 81 in separate kitchens shared with others. Only 46 households cooked in part of the household rooms.

Size of Houses

The typical dwelling in Addis Ababa is small, both in terms of the number of rooms and in area. The sample surveys I and II in the Teklehaymanot and Lideta Districts showed that there were only 745 rooms in the 318 households or an average of 2.3 rooms per household. Of these 318 households 14.15 percent were in one room dwellings, 45.6 percent in two room houses, 28.3 percent in 3 room houses and only 5.3 percent in four room houses. In addition there were 7 five room houses, 2 six room houses, 7 eight room houses and 10 households living in houses the size of which was unknown.

While there is little doubt that these figures are quite typical of the dwellings occupied by the average family in Addis Ababa, the newer houses now being built for those in the upper middle and high income brackets are comparable in size and amenities to houses built for families in similar income bracket in Europe or the United States. However, all too often these are built for the purpose of leasing them to Europeans or Americans at very high rents.

Public Utilities

As was indicated earlier a substantial part of central Addis Ababa is supplied with water from a Municipal System even though relatively few households have water piped into the house. Furthermore, even in the densely populated districts water is still obtained by some families from private or public wells and streams. In some of the more rural districts of the city such as Keranio, Yeka, Lideta and Entoto, substantial numbers of households (18.5 to 38.6 percent) obtain their water supplies from streams.

It is reported that there is no regulation of water connections which may be made to the city water system or private premises. There is therefore a possibility of contamination entering the system as new pipes are being installed. The number of samples being collected for bacteriological tests is also reportedly below recommended standards.

Addis Ababa does not have municipal sewage disposal facilities and only parts of the city are served by storm drainage systems. This lack of a safe, effective means of disposing of human waste in a city as densely populated as Addis Ababa presents a problem the seriousness of which cannot be overestimated. In a report 8/ prepared by a working party of which Ato Yohannes W. Gerima, Acting Assistant Kantiba, was chairman and Mr. Emil G. Jensen, WHO consultant was Rapporteur, the following statement was made, "A vast majority of the population use dry pit latrines. The residence and other buildings having water flush toilets discharge their waste to septic tanks, and cesspools, or often to storm drains or directly to streams. These methods of human waste disposal result in contamination of adjacent areas and the ground water which leech and flow to the streams and water supply wells. There are no provisions for removal of waste water from most of the businesses and residences. The latrines and other accumulations of waste are often accessible to flies and rodents which permits that they can spread the filth to the population and there is extensive promiscuous defecation along the stream banks, in cemeteries and open areas." According to this report there are also large quantities of industrial wastes being discharged into streams. New large office buildings, hospitals and other buildings are being forced to construct costly individual systems which do not provide for satisfactory disposal of the wastes and will have to be replaced in a few years. Furthermore, owners of residences and business with septic tanks and cesspools are faced with the continuing expense of having them pumped out.

The report goes on to say, "Some of the large buildings are discharging their wastes directly to the streams. Below these discharges people are using the streams for laundry and culinary purposes and cattle drink from the streams."

The collection and disposal of refuse and garbage, the cleaning of streets, pumping of septic tanks and cesspools, the control of stray

animals and the maintenance of public latrines all present problems. Although the Sanitation Section had the largest program of the Public Health Department it is reported that its major effort is directed toward town cleaning services which have only a limited relationship to public health.

The lack of an effective system of garbage collections and disposal is reflected in the information gathered in sample surveys I and II in Teklehaymanot and Lideta. Here 33.6 percent of the families had no means of garbage disposal, almost 10 percent burned their garbage, over 27 percent threw their garbage into pits and quarries and the remainder either threw it into the street or used other unspecified means of disposing of it. Only 4 households used municipal services.

Tenure of Dwellings

The majority of the households in Addis Ababa are renters. Only about 23 percent owned the dwelling they occupied while about 67 percent rented their houses, according to the 1961 census. In the Teklehaymanot District in which the Building College conducted their sample surveys of 222 households the census reported that 73.6 percent of the households were renters, while the sample survey I showed that only about 61.5 percent of the 216 households responding lived in rented houses. These households paid from Eth.$2.35 to Eth.$20.00 per month with an average of Eth.$5.90 per month. However in response to the question regarding the ownership of the land on which the house was built 48 of the 89 households responding said they rented the land and only 17 owned it. Four of the families occupied the land free. The remainder did not know who owned the land. The extent to which these latter households might be "squatters" is of course unknown but it was reported to the team that while the illegal occupancy of land was not widespread it was known to exist. In sample survey II, 75 percent of the 96 families lived in rented houses and paid between Eth.$2.50 and Eth.$80 per month rent. The average rent was Eth.$12.50 per month.

Of the 21 families answering the question as to ownership of land about 50 percent reported renting the land and paying an average rent of Eth.$1.32 per month.

Although it is reported that a substantial number of individuals and families in the middle and upper middle income brackets own land either as a result of inheritance or purchased as a form of savings, the long term leasing of land is not uncommon. This form of tenure has some advantages since the land rent is usually considerably less than would be the payment necessary to amortize the value of the land over the normal life of the mortgage. However, it is important that legal protection be offered the owner of the dwelling which assures him of either the unquestioned right to renew his land lease at the expiration of the term or of reimbursement at a fair market value for the dwelling or other improvements if the extension of the lease is denied.

Other Cities

The housing situation in the other cities of Ethiopia seems to be less critical than in Addis Ababa, although few statistics are available. For example, it is reported that in Asmara, old but fairly good quality housing for the middle income groups has not been too difficult to obtain. This has been in part the result of emigration of Italians and some migration to Addis Ababa. However, it is understood that this trend has now been reversed and Asmara has been receiving an increasing number of migrants from other areas. This will undoubtedly create problems sooner or later.

In Dire Dawa, the fifth largest city, it is reported that the greatest need is to replace some of the older houses, although there is also a need for better housing for workers in the new cement plant and cotton mill. Presently, many of these new workers are living in shacks of a temporary nature. The older houses, on the other hand, are often built of stone and consequently are durable, although they may lack modern facilities. There does not appear to be a critical shortage of dwellings for middle income families.

An urban survey of Nazareth made during July and August of 1964,9/ may give some clue to the situation in some of the smaller cities. Incidentally, this was a pilot survey made in anticipation of extending this type of survey to other urban areas under the National Multi-purpose Survey Scheme.

Nazareth is a town of some 26,461 permanent residents with a total inhabited area of 6.59 square kilometers. There were 7,393 households occupying 5,767 houses. However, for the purpose of the survey an area of 13.4 square kilometers was covered, since this included areas to be incorporated into the municipality in the near future.

The density of the population is 2,029 persons per square kilometer, as compared with 2,035 for Addis Ababa as a whole. However, the density of the inhabited area is 4,136 persons per square kilometer, with concentration as high as 13,170 per square kilometer in the market area. Another area with a density of 8,633 persons per square kilometer contains the only Mosque and it is thought that at that time of its construction large numbers of families rushed into the area to build houses on the land which had not been legally acquired by the Municipality.

The average size of household was 3.7 persons and of the 7,393 households, 14 percent had single members. Nearly 60 percent of the households have 2 to 4 persons. As in the case of the Addis Ababa census, a household includes groupings of related or unrelated persons living together, sharing one roof and pooling their earnings and expenditures.

The development of the town during the past two decades had attracted a large number of in-migrants, only one-third of the population having been born in Nazareth.

The existing houses, many of which are built in compounds, are mainly of chica construction with metal roofs (81 percent) although a few had thatched roofs. Only 4 percent had stone walls with metal roofs.

Typically, the main house has whitewashed walls and ceilings and there is usually a small thatched roofed, mud walled, tukul which serves as a kitchen. Firewood and in a few cases charcoal are used for cooking.

The floors of the main buildings were of cement, stone or mud, although a few wooden floors were observed. According to the report "windows do exist, although not on a liberal scale."

The average density of occupancy was only 1.8 persons per room, and the number of rooms per family, was 2.1. On the other hand, the number of rooms in each building was hard to determine and areas with partitions of wood or flexible screens were considered separate rooms if they served a special function.

While 52 percent of the houses had electric light, only 50 percent had piped water inside the compound, despite the fact that the town has an adequate piped water supply, and only 4 percent had flush toilets. The remainder had pit toilets or none (30 percent).

Most of the households are renters. Only 30 percent owned the house they occupied. However, rents were relatively cheap. Nearly 80 percent of the families were paying less than Eth.$10 per month rent and 15 percent were paying between Eth.$10 and Eth.$100 per month. This low rent level reflects the low income level. Only 224 out of 729 males admitted to having regular monthly salaries or daily wages. Others are either traders, casually employed, or living on income from property and land. Employees of the government and other offices earned from Eth.$20 to Eth.$400 per month, while daily laborers earned from Eth.$30 to Eth.$40 per month. The latter group was the largest single group of the population and represents 16.8 percent of the work force. Government employees on the other hand were only 4.3 percent of the work force.

While it is obviously impossible to draw any very firm conclusions as to housing need from the data derived from the study, it is obvious that a substantial percentage of the population was living under very high densities although there apparently were substantial amounts of vacant land within, or close to, the city limits. On the other hand, density in terms of persons per room was substantially lower than in Addis Ababa.

While there are no statistics to bear this out, the data showing predominant types of construction coupled with a brief visit by the survey team led to the conclusion that the conditions of the dwellings was probably as good, on the average, as in Addis Ababa. On the other hand, slightly fewer households had electricity and slightly more had piped public water than in Addis Ababa.

The number of new dwellings under construction at the time the survey was made was 68 and these were mostly on the edge of town.

The report estimates that the population may be expected to double within eleven years. This is anticipated in view of the extended rail and other facilities and the completion of the new hydro-electric power project near Koka which hopefully will attract new industries. If this be the case the need for housing will be substantial.

Rural Areas

There is little or no data on the rural housing situation. Observations of the team made while on trips to Nazareth, Shashamenne and Sodo to the South of Addis Ababa would indicate that in the larger villages along the highways buildings are usually rectangular structures often of chica and in some few cases of stone construction and frequently appear to have an Italian influence. Rural families, however, house themselves in the traditional round Tukul of chica construction with a conical thatched roof or in rectangular chica and thatch dwellings. Between Shashamenne and Sodo and again south of Sodo the rural homes were often built with bamboo or wood frames with a bee-hive shape, and covered entirely with thatch. While these dwellings are often essentially of one room, and often house the animals at night as well as the family, they are admirably suited to the climate, which often is quite hot, at least during the day. The rather loose construction permits a certain amount of air movement even though these dwellings rarely have openings except for the door. The interior finish of some of these houses is of handsomely woven bamboo.

The principal objections to many of these houses are:

1. The lack of separation between the parents and children of different ages and sexes as well as the lack of separation between humans and animals.
2. The lack of really adequate ventilation particularly at night when the dwelling is fully occupied.
3. The mud floors, which are often worn down so that they are lower than the surrounding ground.
4. The lack of adequate provision for smoke from the cooking to escape except through the door or, in the case of the bamboo and thatch dwellings, through small openings near the peak or through the thatch itself.

5. The large amount of wood used in the construction, and not infrequent reconstruction, of the chica type house. It is reported that through the years this type of construction resulted in serious deforestation of the uplands, particularly in the North.
6. The short life of the buildings.

In the area around Lalibela, a substantial number of stone tukuls were observed, many two-storied with outside stone steps winding up to the second floor. These provide relatively commodious accomodations for the occupants.

While rural dwellings leave much to be desired, in many respects, the cost of replacing them with more modern structures would be enormous and far beyond the means of either the owners or the government. On the other hand, when a tukul becomes uninhabitable there would be a distinct advantage to replacing it with a somewhat more permanent type of construction and improving the livability by introducing partitions to provide some separation between areas in the house, providing better ventilation, and better means for smoke to escape. Another improvement, which incidentally could also be made in existing buildings, would be the installation of a stone or stabilized earth floor raised above the ground level to prevent seepage into the houses during rains.

Actually, efforts are being made to induce rural families to improve their dwellings as the opportunity presents itself. The Building College has erected demonstration houses in various strategic locations throughout the country as well as on the College grounds. The team visited two of these demonstration houses at Zwai one of which was of burned brick construction and the other of concrete block. The College was also making stabilized earth blocks, using an Ellson machine, preparatory to erecting a school building. These blocks appeared to be of good quality and should represent a distinct improvement over the traditional chica wall.

The Building College has also erected a number of small brick kilns in various locations. Their research has indicated that if the wood used in framing a chica house were used as fuel instead, enough burned brick could be produced to build the same size house.

The agricultural engineer at the Imperial Ethiopian A&M College in Alemaya has also demonstrated the advantages of using a cement plaster for chica houses in order to reduce maintenance and prolong their life. It is reported that a substantial number of rural dwellers in the area have adopted this practice after having observed the demonstration.

The Building College has also been assisting the Governor of Wolamo Awraja, Kegnazmatch Wolde Semait, by providing designs for

houses which will be erected at selected locations in the large resettlement area south of Sodo. Some six hundred families from all over Ethiopia have resettled in this area and it is anticipated that some 1000 families will be provided with land by fall of 1965.

Each family will have 5 hectars of land. In order to secure title they must clear the land the first year. A clinic and school have been built and AID is helping with a water distribution system.

There are no plans to give families financial assistance in building houses. In fact, the governor had originally intended to make loans of Eth.$100 to each family to purchase draft animals for plowing and for other purposes. But he found that the people did not want to go into debt and abandoned the idea of the loans.

At the time of the survey team's visit, relatively few houses had been erected. It is hoped that the demonstration homes will encourage families to build more modern, permanent buildings or at least copy some of the better features of the demonstration houses.

This is a most impressive project and given time it is likely that many of these families may be eager for better dwellings. At such time, some form of aided self-help project may prove to be very useful.

Housing Programs

Aside from the establishment of the AID-supported Imperial Savings and Home Ownership Public Association to provide financing for middle income housing, few housing programs have been carried out in Addis Ababa.

The first program in recent years involved the construction of six middle income dwellings on the site which was later turned over to the Imperial Savings and Home Ownership Public Association as the contribution of the Imperial Ethiopian Government toward the establishment of that Institution. These were built by the Ministry of Public Works. They have never been sold and are presently being rented.

The second program is the Kolfe low cost housing project which is under construction on the northwestern edge of Addis Ababa. This project is a pilot project designed to house low income families displaced or to be displaced as the result of the demolition of their homes to make way for the construction of new public or commercial buildings. These families are in the Eth.$50 to $100 per month income range. The project is being supported by the Imperial Ethiopian Government, through

the Municipality which has allocated Eth.$100,000, plus a site of 68,900 square meters. The Swedish Government and the United Nations each are to contribute one third for a total of Eth.$300,000. The Building College designed the houses and is providing technical supervision.

The project involves the construction of 68 contractor built houses and 12 houses to be built by aided self help. Ultimately the project will have 91 houses. Just prior to the team's departure, the Federal Republic of Germany donated Eth.$130,000 to the project. About Eth.$30,000 is to be used for general support of the project and the remainder for an additional group of contractor built houses.

The first two of the aided self help houses were largely constructed in connection with a training course sponsored by the UN ECA for aided self-help technicians from other African countries and work on the remaining houses is now underway by the future owners.

The aided self-help houses consist of two rooms which are designed so that an equivalent area can be added, thus doubling the size of the main unit. In addition there is a shower and toilet compartment and a small kitchen in a separate structure. The total area is roughly 27 square meters. The houses will be built in pairs. The cost of the materials and equipment is about Eth.$1,500 which will be repaid by the families over 20 years. The land for the aided self-help houses will not be sold but rented on a 20 year renewable lease.

The contractor built houses will be larger and will have a living-dining room and two bedrooms in addition to kitchen and bathroom. They will cost about Eth.$2,300 and will have an area of about 32.5 square meters. These will not be sold outright but leased to the occupants. However, it is possible that they may become the property of the families after 20 years.

In addition to these projects the Building College has been erecting a few demonstration houses in rural areas to illustrate better planning and construction to families. In addition four such houses have been built for research and demonstration purposes on the campus of the College. The Students' Home Improvement Association has also been working with some 25 low income families in the Lideta District of Addis Ababa to help them improve their existing dwellings. An amount of Eth.$860 was spent to renovate these houses. Improvements made included painting or whitewashing walls, installing doors, windows and ceilings, constructing kitchens, latrines and shades and replacing thatched roofs with corrugated iron sheets.

Chapter VI

Housing Requirements and Effective Demand--Addis Ababa

Measurement of housing requirements in any given housing market area is a difficult and precarious exercise at best. The validity of the answers derived will depend largely on the availability and the validity of the data and the information necessarily employed to make the analysis, as well as the validity of assumptions, or judgments, that may have to be applied when full and firm data are not available. The type of answers sought may include estimates as to the total housing need, that is, a measure of all families who are inadequately housed in relation to some present minimum standards as to housing quality and density of occupancy; preferably broken down by income groups and indicating the ability of such families to pay for the provision of "standard" housing to meet their needs. In addition, it is desirable to try to measure effective demand in terms of the number of units required by families in various income groups and the prices at which they can afford to acquire the needed housing. Finally, consideration must be given to an estimate of immediate, or near-term, market demand which is limited to that portion of effective demand which can be supplied by private enterprise. This portion must usually be discounted by the number of families who, for one reason or another, may be expected not to enter the market or to delay their entry.

The type of information needed to determine housing requirements and effective demand includes: (1) reliable and up-to-date data on population and family characteristics and trends, (2) data on migration, (3) thoroughgoing data on wages and salaries paid and a percentage distribution by income groups of total family, or household, incomes, (4) information on the level and trends of economic activity and employment, (5) a reasonably current survey of housing conditions (quantity, quality, size and density of occupancy of the existing stock of housing), (6) the rate and trend of "standard" residential construction, (7) a concept of accepted minimum standards of accommodation, and (8) financing terms available, or that can become available, in the market area. A considerable amount of data of these types was found to be available for Addis Ababa--albeit not as complete or timely as might be desired, but sifficient to provide the framework for analysis.

For other Ethiopian cities, the availability of such data is limited. Given sufficient time, an analyst might be able to construct reasonable estimates with respect to the data needed for cities other than Addis Ababa through observation, intensive interviews with numerous informed secondary sources of information, and piecemeal construction of the needed indices. This has not been possible within the time limits of this survey, and only general observations are possible for these other cities.

A rather thorough analysis of total housing need and effective demand was constructed for Addis Ababa, where, without doubt, the greatest and most urgent needs exist. What follows is a description, explanation and the results of that analysis.

Analysis of Total Housing Need in Addis Ababa

The Housing Market Area

A housing market is defined as the area within which the population normally lives and works. This would usually consist of the central city which contains the principal population and employment concentrations and the adjacent suburban areas. In the case of Addis Ababa, such suburban development as exists is within the limits of the city proper which, without adjustment either outward or inward, makes up an appropriate area for housing market analysis. It should be borne in mind, however, particularly in consideration of market demand, that some of the outlying areas within the city, while not great in distance from the central area, are not adequately served with roads, public transportation, water or other facilities and would not, therefore, be attractive to home-seekers unless, and until, such facilities are provided.

Trend of Economic Activity

Economic activity (production, trade and employment) has been, and undoubtedly will continue, increasing at a fairly vigorous rate. Most of the published and available data on economic activity covers the country as a whole, but Addis Ababa, playing a very large role in the total economy, undoubtedly shares or exceeds the overall rates of growth.

The index for industrial production for the Empire of Ethiopia (1955=100) increased from 123 in 1958 to 226 in 1963, an average annual rate of change of about 16.4 percent.[10] It seems reasonable to predict a continuing rate of increase of 10-15 percent a year or greater. Employment in manufacturing industries increased from 19,998 in 1958 to 32,589 in 1962 [11] and to 43,000 in 1964 according to preliminary figures [12], for a percentage increase similar to that for industrial production.

The assumed growth rate of gross national product in Ethiopia for 1962-67 is 4.3 percent per annum and the rate for per capita GNP 2.5 percent.[13] These rather vigorous rates are confirmed, approximately, by studies made by the USAID Mission. Information obtained from several of the larger private employers in Addis Ababa shows an increasing trend of employment from 1961 to 1965.

Prices, wages and salaries, while relatively stable, have shown some tendency to move upward in recent years. The wholesale price

index--export (Addis Ababa), major commodity groups (1958 = 100), stood at 85.5 for 1961, declined in 1962 (80.6), held stable in 1963 (81.2) and increased in 1964 (98.6 in 2nd quarter).14/ The index for "other goods" (Addis Ababa), the nearest available to a "Consumer's Price Index", also based on 1958 as 100, stood at 96.2 in 1961 and gradually increased to 98.4 by the 2nd quarter 1964.14/

Average pay per operative and other employees in manufacturing industries throughout the Empire increased from Eth.$418 in 1959 to Eth.$486 in 1962, an increase of 16 percent in three years. Employment and income data were obtained from four major employers in Addis Ababa. One showed about a 15 percent decline in the average of wages and salaries paid in the four year period 1961-65, attributed to the spreading of a rather fixed number of managerial employees over a growing number of low-skilled workers (total employment increased from 144 to 245). Another reported a 3-4 percent per year increase in average wages and salaries paid. The third reported a 5 percent per year increase, and the fourth an accelerating 5 to 10 percent per year increase.

It would appear that wages and salaries have been generally moving up at an increasing rate while prices have been rather stable, or with lower rates of increase, thus resulting in an increased standard of living with an increasing number and proportion of workers entering the "middle class."

Population and Households

Addis Ababa is one of the many African capitals which grew up in a remarkable way during the past twenty years. The 1961 census recorded 449,000 inhabitants, while previous estimates were of 35,000 in 1908, 70,000 in 1928, 105,000 in 1938, and 400,000 in 1952.15/ It is now the largest city in Africa between Cairo and Johannesberg, and the 5th ranking in population of all African cities.

The 1961 census 16/reported 435,016 population in private households, exclusive of institutional population and homeless, with 123,755 households--defined as a group of people who slept in the same or related quarters and who had common arrangements for meals. The average size of household was 3.51 persons (median 2.39).

The estimated rate of natural increase in population for Ethiopia as a whole is 1.6 percent per annum.17/ Addis Ababa, the capital city, is of course a magnet for in-migration from other parts of the country as well as from outside the country. No official estimates of the current rate of total population increase for the city were discovered by the survey team. A number of informal, unofficial estimates were obtained which ranged from 3.8 to 7 percent increase per annum. For several reasons the survey team has discounted these estimates and for

purposes of analysis has chosen a rate of 3.2 percent per annum, cumulative, to estimate the increase from 1961 to the present and to project population (and households) to 1968.

One reason for selecting this rate is based upon the increase between 1952, when a "count" of sorts was made showing 400,000 and 1961 when the census showed 449,000--a rate of increase much lower than current unofficial estimates and even lower than the rate chosen. (Some opinions with respect to the methods of enumeration in both of these years indicate that there may well have been some over-enumeration). However, on the basis of informed opinions and observation, it seems apparent that the rate has accelerated somewhat in recent years.

Another reason for choosing a lower rate than those from unofficial estimates is that Government policy toward decentralization of industry, improvement of educational and agricultural opportunities in the hinterland, and programs for new towns and community development should have the effect of diminishing the amount of migration to the capital city which might otherwise take place.

Using the rate of increase of 3.2 percent, compounded annually, and the average number of persons per household of 3.51, we arrive at the following estimates of population and households for 1965 and 1968:

	1961 Census	1965	1968
Population in Households	435,016	493,400	542,300
Households	123,755	140,000	154,500

Interestingly, the estimated total population for 1965 approximates the 500,000 which those with informed opinions most frequently cite as an estimate of current population.

Family Income Estimates

Family income, as a determinant of ability-to-pay for housing, is a crucial factor in housing market analysis. The 1961 census did not report on incomes. Two published reports were found which were helpful in constructing a picture of incomes and income distribution by various income groups. One was a table on "Civilian Employment Paid by the Head Offices of the Government Ministries and Departments in Addis Ababa by Level of Income",[18] as of January 1962, excluding the Defense Ministry, but including the Municipality of Addis Ababa. The incomes of 19,812 employees were reported in a detailed distribution by income groups. The other was a joint study in April 1960 [19] by the University College

of Addis Ababa, the UN Economic Commission for Africa and the Municipality of Addis Ababa of the social structure of some 600 families in six diverse areas of the city. Incomes of 588 households, and an income distribution by income groups, were reported.

Advices from many persons interviewed inside and outside of government were that government salaries are somewhat lower than those in the private sector. To gain more information on incomes in the private sector, data on wages and salaries were obtained from four of the major employers in Addis Ababa. An income distribution was constructed for the private sector which included a total of 2,735 employees (also including the 588 from the UNECA survey presumed to be employed mostly in the private sector). It was recognized that the distribution constructed in this manner was probably weighted on the high side because the larger, progressive employers pay higher wages and the coverage excluded the many tradesmen and individual entrepreneurs whose remuneration was indicated to be lower. It was decided to select an income distribution curve halfway between that of the public sector and that of the private sector, as constructed, as being reasonably representative of incomes from all types of employment.

An adjustment was then made for secondary sources of income in the form of earnings of secondary workers in the family, bonuses and other employment benefits, rents received, and any other extra income in cash or in kind. In the absence of any reliable published data on this factor, reliance had to be placed upon the opinions of many informed persons interviewed, An arbitrary adjustment factor was derived to the effect that secondary sources would, on the average, increase family income by 10 percent in the less than Eth.$200 a month group, 15 percent in the Eth.$200 to $500 a month group and 20 percent for families receiving over Eth.$500 per month of primary income. The resulting income distribution is shown in Table 3.

Backlog of Housing Requirements in 1961

The 1961 census reported on housing conditions and housing facilities as well as population. Four types of construction were reported. (See Table 2, p. 41). The census report states that "If the first two classes of construction can be regarded as providing reasonably complete protection from the weather then it would appear that 43 percent of households were living under these conditions." It follows that the remaining 57 percent were living in conditions below this standard of weather protection.

Setting minimum standards of acceptable livability in an economy such as that of Addis Ababa is an extremely difficult thing to do. No such minimum standards have been pronounced, or suggested, either officially or unofficially, unless the census classification by type of construction may be taken as a suggestion. Since the setting of such a

Table 3

Percentage Distribution of Total Family Incomes

Family Income Monthly, Eth.$	Percent By Class	Percent Cumulative
Less than 50	35.0	35.0
50-100	14.7	49.7
100-200	15.4	65.1
200-300	12.5	77.6
300-400	7.5	85.1
400-500	4.8	89.9
500-600	2.6	92.5
600-700	1.8	94.3
700-800	1.2	95.5
800-1000	1.8	97.3
1000 and more	2.7	100.0

standard is essential to the analysis of housing requirement, it is concluded that the census figure of 57 percent non-weather proof construction--and also giving account to the considerable lack of facilities and to the high density and overcrowding, described in Chapter V--is an appropriate bench mark for present purposes of analysis. This properly leaves to the future, and to local determination, the more specific definitions of what should be considered to be minimum standards of construction and occupancy in the interest of safety, health and livability.

If we apply to the total number of households of 123,755 in 1961 the 57 percent figure of those considered to be below minimum standards of livability, we derive 70,600 units of a substandard or overcrowded condition. Informed opinion has been received to the effect that such units are found among all income groups. They have been apportioned, therefore, among all income groups in accordance with the percentage of families in each, as shown in Table 4.

Adjusted Housing Requirements 1965 and 1968

To determine the current housing requirements, and to project them three years in advance for 1968, it is necessary to take into account new family formations and new, standard, residential construction over these periods. Ordinarily vacancies in "standard" housing, if they existed in significant numbers, would also be taken into account. It appears that vacancies occuring in standard housing are immediately snapped up by those seeking and waiting for such housing. Vacancies, therefore, are a negligible factor in the supply of housing in this market.

Based upon the assumed annual rate of increase in population and households of 3.2 percent, there would have been 16,800 additional households created in the period 1961-1965 and an additional 13,900 to be formed in the period 1965-1968.

It is not possible to find accurate and complete statistics on new residential construction from 1961 to the present, to say nothing of the extent to which units built were of "standard" quality. Figures on building permits issued are acknowledged to be faulty with respect to the extent and variation of coverage. However, with the help of informed opinion and estimates, particularly from the Planning Department of the Municipality, an attempt has been made to draw up estimates of such construction, to project these estimates into the 1965-68 period, and to prorate the numbers among the various income groups. The effect of these adjustments showing the total housing requirements in 1965 and 1968 may be seen in Table 5.

Table 4

Backlog of Substandard and Overcrowded Housing 1961

Monthly Income Eth.$	Percent of Families	Substandard and Overcrowded Housing
Totals	100.0	70,600
Less than 50	35.0	24,710
50-100	14.7	10,380
100-200	15.4	10,870
200-300	12.5	8,820
300-400	7.5	5,290
400-500	4.8	3,390
500-600	2.6	1,840
600-700	1.8	1,270
700-800	1.2	850
800-1000	1.8	1,270
1000 or more	2.7	1,910

Table 5

Total Housing Requirements 1965 and 1968

(1) Monthly Income (Eth.$)	(2) Total Housing Requirements 1961	(3) New Family Formations 1961-1965	(4) "Standard" Residential Construction 1961-65	(5) Total Requirements 1965 (2)+(3)-(4)	(6) New Family Formations 1965-1968	(7) "Standard" Residential Construction 1965-1968	(8) Total Housing Requirements 1968 (5)+(6)-(7)
Totals	70,600	16,800	5,400	82,000	13,900	5,000	90,900
Less than 50	24,710	5,880		30,590	4,860		35,450
50 - 100	10,380	2,470		12,850	2,040		14,890
100 - 200	10,870	2 590	270	13,190	2,140	250	15,080
200 - 300	8,820	2,100	270	10,660	1,740	250	12,150
300 - 400	5,290	1,260	540	6,010	1,040	500	6,550
400 - 500	3,390	800	540	3,660	670	500	3,830
500 - 600	1,840	440	540	1,730	360	500	1,590
600 - 700	1,270	300	540	1,030	250	500	780
700 - 800	850	200	540	510	170	500	180
800 - 1000	1,270	300	810	1,060	250	750	260
1000 and more	1,910	450	1,350	1,010	380	1,250	140

The requirements figures shown for 1965 and 1968 represent the quantitative need by various income groups for housing to overcome the deficiencies in the present inventory as to quality of construction and high density of occupancy and to satisfy the requirements of the population expansion. It may be observed that the housing situation for families with incomes over Th.600 per month has been gradually improving and may be expected slowly to improve further without major change in present construction and financing methods, costs and terms. However, the situation for families with incomes below Th.600 per month is seen to be worsening as their numbers increase and provision of standard housing under present terms of construction and financing does not keep pace with the growing needs. A further factor, mostly affecting, and aggravating, the situation for the lower income families, is the expropriation and demolition of numerous, mostly substandard, dwellings in the central area of the city to make room for large scale construction of public and commercial buildings.

It will obviously take a long-range program over many years, seeking all possible means to reduce the costs of construction and financing, to reverse the trend of further deterioration of the housing situation for lower income families and to hasten the satisfaction of housing needs on the part of the middle and higher income families. From and beyond this picture of total needs and requirements, it will be useful to develop a picture of effective demand for housing; that is, what families in all income groups can reasonably afford to pay for improved housing, and effective market demand on the part of those in the middle and higher income range whose needs and desires may be expected to be met by private enterprise.

Effective Demand for Housing

To determine effective demand it is necessary to estimate the prices which families at various income ranges will normally pay for housing. The development of such estimates assumes that families at various income levels are able and willing to allocate certain proportions of their income to pay for the amortization and interest charges on a mortgage or to make rental payments. The first step is to convert income into the maximum amount a family is able to pay for monthly charges. For sales housing, this latter amount may be translated into a mortgage amount (assuming certain terms as to interest, period of amortization and amount of down payment) which, in turn, may be converted into the price of a house. While this analysis concentrates on the effective demand for sales housing, the total demand may be divided between sales and rental housing, and rental payments which families can afford may be equated with maximum mortgage payments. To pursue this analysis of effective demand there is need to develop (1) appropriate ratios of mortgage payment to income, and (2) the most appropriate financing (mortgage) terms.

Ratio of mortgage payment to income

Very little assembled information is available in Addis Ababa on present, or customary, payments being made for rent, or for housing loan amortization, in relation to income. The UNTCAL, et al, 1960 survey of Addis Ababa's social structure, previously cited, which covered 600 families in six diverse areas of the city, gives some clue to this. It found that the percentage of income paid for rent by various income groups ranged as follows:

Monthly Income (Eth.$)	Percentage of Income for Rent
0 - 25	12.8
26 - 50	11.6
51 - 150	7.5
151 - 300	4.9
301 - 500	5.8
501 -1000	5.8

These are unusually small rent-to-income ratios. Reaction to this by informed persons was that this was not typical, particularly in the higher income brackets; that rents have risen substantially since 1960 because of the extreme shortage of housing; that many families, particularly in the higher income brackets, are paying 20-25 percent of income or even higher, in order to obtain better quality housing. One knowledgeable source reported that rents of Eth.$10 per room were quite common for lower quality housing occupied by families with incomes of Eth.$50-100 per month, although rents as low as Eth.$2.35 were revealed by surveys conducted by the Building College.

Higher cost (Eth.$20-50,000) single-family, villas (rented mostly to foreigners) demand rents of Eth.$500 to $1,000 per month, which rental income is widely reported to amortize total investment in 3-5 years. Similarly, recently built modern apartments, occupied in considerable part by Ethiopians, and with long waiting lists, rent from Eth.$125 for small efficiency units to Eth.$250 for 1½ bedroom units, which rental income is again reported to amortize investment in 3-5 years.

The motivation for home ownership, and for obtaining "good" housing is widely reported to be very strong. The Imperial Savings and Home Ownership Public Association reports from its experience that most of its clients (and these are mostly in income ranges exceeding Eth.$700 per month) were paying an average of 20 percent of income at time of application and are quite willing to make monthly payments of 25 percent or more for the opportunity to own a modern house. This same view was expressed by a number of government officials and large private employers. An official of one large private company

said that while employees in the Eth.$300 to $700 income bracket were now paying 10-15 percent of income for very poor housing, they would be willing and able to pay 20-25 percent for good housing if it were available. The Director General of the Chamber of Commerce estimated that most families in the Eth.$200 to $400 income group now pay Eth.$30 to $75 a month, or higher, for houses that are not worth it and would be willing and able to pay more for good quality housing.

Based upon the information indicated, a schedule of ratios of mortgage payments (or rents) to income was constructed as follows:

Income Groups (Eth.$)	Ratio of Monthly Payment to Income
Less than 300	15%
300 - 400	17½%
400 - 700	20%
700 - 800	22½%
800 and more	25%

From this is derived a table of maximum monthly mortgage payments (or rents) by income groups. See Table 6.

Financing Terms

Except for the very exceptional case of the individual who has large enough assets and income to finance the construction of a house entirely with his own resources, there are presently only two, rather limited, sources for obtaining the loans to finance house construction and ownership. One is through the commercial banks, and the other through the Imperial Savings and Home Ownership Public Association.

The only commercial bank which makes loans for the construction of housing is the Commercial Bank of Ethiopia, whose shares are wholly owned by the Imperial Ethiopian Government. The Addis Ababa Bank (Share Company) is relatively new and does not now make loans for this purpose. The Commercial Bank has three categories of loans supporting either the construction of housing (in which case the interest rate is 7½ percent) or the purchase of existing housing (interest at 8½%):(1) for loans up to Eth.$20,000 the Bank may finance the full value providing that satisfactory collateral up to twice the amount of the loan is pledged; (2) loans between Eth.$20,000 and $30,000 are limited to not in excess of 50 percent of the cost or value of the property involved; and (3) loans over Eth.$30,000 are limited to not over 30 percent of the cost or value of the property, exclusive of land. The maximum time period is five years. These loans are made mostly by investors who have sizeable assets in land and/or cash; not for the purpose of building and owning a home in which to live, but to construct one or more houses of a "villa" type (Eth.$20,000 to $50,000) for rent, mostly to foreign families, at rents of Eth.$500 to $1000 per month or more.

Table 6

Estimated Maximum Mortgage Payments by Income Groups

Estimated Family Income (Eth.$)	Ratio of Monthly Payment to Income (Percent)	Estimated Maximum Mortgage (or Rental) Payment (Eth.$)
Less than 50	15	Less than 7.50
50 - 100	15	7.50 - 15.00
100 - 200	15	15.00 - 30.00
200 - 300	15	30.00 - 45.00
300 - 400	17.50	52.50 - 70.00
400 - 500	20	80.00 -100.00
500 - 600	20	100.00 -120.00
600 - 700	20	120.00 -140.00
700 - 800	22.50	157.50 -180.00
800 -1000	25	200.00 -250.00
1000 and more	25	250.00 and more

This type of "marginal" financing does not, and cannot be expected to, serve the vast majority of the general public in meeting its housing needs. Very few families may be expected to have, or to accumulate in advance, assets amounting to 50 percent, or more, of the cost or value of a house. Furthermore, this type of individual "custom" construction, which is costly, cannot take advantage of large cost reductions possible through building in large numbers.

The Imperial Savings and Home Ownership Public Association makes mortgage loans for housing at maximum terms of 16 years, 6% interest on individual homes and 7% on duplexes, and 25 percent down payment or equity. The maximum mortgage amount is th.$20,000 for a single house and th. $30,000 for a duplex. In practice, the Association has generally required a higher equity than the 25 percent minimum and has reduced the term of the loans somewhat below the 16 year maximum (average 13 years). These terms make it possible for many families to acquire a house who would otherwise be unable to do so. The Association has more applicants and eligible borrowers than it is able to accommodate because of its limited capital and the limited volume of savings which it has been able to attract. It has made 45 loans to date (22 houses have been completed and 21 are under construction) and an additional 15 eligible families are on the "active" waiting list. Others would be eligible but have been discouraged from making formal application because of the known long delay before a loan would be possible.

It is obvious that the Association is at present a very limited financing facility. This is partly because of its limited capital and deposits and partly because it has been unable to find a secondary market for its mortgages. Also the 25 percent equity requirement and 16 year term (particularly as more severely administered) are difficult for many potential home-seekers to meet.

There is in prospect one or more Investment Guaranty projects for construction of some considerable volume of housing at prices and financing terms within the reach of middle income families. The financial terms in prospect for one of these would be about 8½% interest, 20 year amortization and 10 percent down payment.

These terms, which are both realistic and reasonable, have been selected for this analysis in determining mortgage amounts and prices of houses which families in the different income groups can afford. It should be realistically possible for Ethiopian financial institutions to approach these terms in the near future. Using these terms Table 7 has been constructed to indicate the estimated mortgage amounts and sales prices which families in various income groups could afford.

The effective demand for housing may now be constructed by relating the number of families in each income group to the number of units needed by each group and the prices of housing which its members are able to afford. This has been done in Table 8.

Table 7

Estimated Mortgage Amounts and Sales Prices
(8½% interest, 20 years, 10% down payment)

Estimated Family Income (Eth.$)	Estimated Maximum Amount of Mortgage (Eth.$)	Estimated Sales Price of House (Eth.$)
Less than 50	Less than $900	Less than 1000
50 - 100	900 - 1700	1000 - 1900
100 - 200	1700 - 3400	1900 - 3800
200 - 300	3400 - 5200	3800 - 5800
300 - 400	5200 - 8100	5800 - 9000
400 - 500	8100 - 11,500	9000 - 12,800
500 - 600	11,500 - 13,800	12,800 - 15,300
600 - 700	13,800 - 16,100	15,300 - 18,000
700 - 800	16,100 - 20,700	18,000 - 23,000
800 -1000	20,700 - 28,800	23,000 - 32,000
1000 and more	28,800 and more	32,000 and more

Table 8

Effective Demand for Housing 1965

Monthly Income (Eth.$)	Estimated Housing Units Needed	Estimated Sales Prices (Eth.$)
Less than 50	30,590	Less than 1000
50 - 100	12,850	1000 - 1900
100 - 200	13,190	1900 - 3800
200 - 300	10,660	3800 - 5800
300 - 400	6,010	5800 - 9000
400 - 500	3,660	9000 - 12800
500 - 600	1,730	12,800 - 15,300
600 - 700	1,030	15,300 - 18,000
700 - 800	510	18,000 - 23,000
800 -1000	1,060	23,000 - 32,000
1000 and more	1,010	32,000 and more

Market Demand for Housing

Effective demand is only the potential of market demand which is limited in two respects: (1) the lowest level of cost or price at which private enterprise can be expected to construct a house or apartment of minimum but adequate standards of quality, space and sanitary facilities on developed land suitably located with regard to community amenities and; (2) the extent to which families needing and able to pay for improved housing will actually have the will and desire -- the motivation-- to purchase or rent new housing made available on the terms indicated. With respect to sales housing this includes the willingness and ability to make, or to quickly save and accumulate, the down payment of 10 percent of the purchase price plus the amount of closing costs.

As to the first limitation the survey team estimates that the current level at which a 2-bedroom house of minimum but adequate standards can be built for sale is approximately Eth.$6,000. This would be a house of some 45 square meters in area of brick wall construction with living-dining room combination, 2 bedrooms, Ethiopian kitchen with sink, flush toilet and shower. Without land, and including a contractor's customary overhead and profit, it is estimated that such a house can be built for Eth.$5,200. Allowing for a 200 square meter plot of land at $4 per square meter, or Eth.$800, brings the total to Eth.$6,000. A one-bedroom house of somewhat smaller size could be built for less. At this minimum level private enterprise should be able to reach down into the lower segment of the Eth.$300 to $400 income range.

The second limitation is more difficult to deal with since it has to do with a number of intangibles and the many value judgments that a family considers and makes decisions on before it makes up its collective mind on whether or not to purchase or rent a new house. The limitation will be less--and the market demand maximized--to the extent that the housing is attractive and appealing to Ethiopian families and is considered to be a good value for the money. This means a challenge to contractors, builders, developers and financial institutions to provide the best possible in quality of construction and design appealing to Ethiopian families (with particular consideration to the traditional "injera" kitchen and the desire for courtyard or other outdoor space), the provision of sanitary facilities and basic utilities of water and electricity, with location served by improved roads and public transportation and reasonably convenient to places of work, shopping, churches, schools, etc.

The survey team has polled the opinion of many of the government officials and other persons interviewed on this question of the desire and motivation of families now living in poor housing to purchase or rent new housing if it were made available at prices and terms within their ability to pay. The general response has been that the motivation

is very strong; particularly for home ownership and among middle income families. Most respondents felt that a down payment of 10% would be little, if any, obstacle to those so motivated. The amount of closing costs, if high, might make some difference. It was indicated, however, that many families do feel satisfied with their present housing and would not choose to pay more for better housing. Some would not want to be among the first to go into new project-type housing, but would wait to learn from the experience of the first occupants.

Based upon all the information received it is the judgment of the survey team that immediate or near-term market demand amounts to at least one-third to one-half of the effective demand in the income ranges which can be served by private enterprise. Applying these ratios to effective demand by income groups above the minimum which private enterprise can reach results in the schedule of numbers of units of market demand with related sales price ranges shown in Table 9.

Considerations with Respect to Rental Housing

According to the 1961 census only 23 percent of all households occupied their own homes. Of the remaining 77 percent, 67 percent rented and 10% had other arrangements. The largest proportion of home ownership occurs in houses of the poorest type of construction and the smallest proportion in houses of the best type of construction. The survey team was assured by almost all respondents that the vast majority of families wanting and seeking improved housing are desirous of owning a home of their own. Some, however, indicated that a portion of new housing should be made available for rental to meet the needs and circumstances of families who would not wish to make the commitments involved in home purchase.

In spite of the indications of strong Ethiopian preference for home ownership, rental apartments appear to have a strong demand. Apartments in a 60-70 unit project built some 10 years ago having four small rooms, kitchen and shower rent for Eth.$150. A recently built 82-unit apartment building near Africa Hall offers efficiency units of 30 square meters for Eth.$125, one-bedroom units for Eth.$200 and two bedroom units of 60 square meters for Eth.$250 and has a long waiting list. Most tenants of both projects mentioned are Ethiopians.

These considerations point to a need for a certain proportion of rental housing within the market demand. It is the judgment of the survey team that this proportion should be at least 20 percent of the total.

The total market demand for both sales and rental housing with indicated sales price and rental ranges is shown in Table 10.

Table 9

Units of Market Demand with Related Sales Price Ranges

Monthly Income (Eth.$)	Units of Effective Demand, 1965	Units of Market Demand, 1965 (rounded)	Price of House (Eth.$)
$300 - 400	5,650	1900 - 2850	$6,000 - 9,000
400 - 500	3,660	1250 - 1850	9,000 -12,800
500 - 600	1,730	600 - 900	12,800 -15,300
600 - 700	1,030	350 - 550	15,300 -18,000
700 - 800	510	300 - 375	18,000 -23,000
800 -1000	1,060	350 - 550	23,000 -32,000
1000 and more	1,010	350 - 525	32,000 and more
Totals	14,650	5,000 -7,500	

Table 10

Units of Market Demand with Related Sales and Rental Prices

Units of Market Demand for Sales Housing	Sales Price Ranges (Eth.$)	Units of Market Demand for Rental Housing Min.	Max.	Rental Ranges (Eth.$)
1500 - 2280	6000 - 9000	380	- 580	55 - 70
1000 - 1480	9000 -12800	250	- 370	70 -100
480 - 720	12800 -15300	120	- 180	100 -120
280 - 440	15300 -18000	70	- 110	120 -140
160 - 220	18000 -23000	40	- 50	140 -180
280 - 440	23000 -32000	70	- 110	200 -250
280 - 420	32000 -and more	70	- 100	250 and more
4000 - 6000		1,000	- 1,500	

It should be emphasized that these final figures are, at best, approximations. Housing market analysis is by no means an exact science. Any impression that the use of exact figures through the various stages of the analysis lends exactitude to the final results should be dispelled. They should be used as a guide only.

Decisions to purchase or rent a new home are individual decisions based upon a large variety of considerations. There might, for example, be quite a transference as between the indicated income groups and price, or rental, ranges. Some families of relatively low income might choose to pay a higher proportion of income for housing than is imputed to them on the average and thus enter the market at a higher level than indicated. Some may also have significantly higher secondary income, and thus be able to pay more for housing than is indicated in the analysis for their income level. Families of higher income may be satisfied with less in the way of a house than they can actually afford and thus enter the market at a lower level than that imputed from the analysis. The market is actually a fluid thing with great variety in the individual choices made and the reasons for those choices.

The survey team has diligently endeavored to develop all pertinent information for the analysis. Much of such information is less extensive and factual than would be desired. Much reliance has had to be placed upon informed opinion and judgment and it has been necessary to make assumptions based upon pieced-out information and opinion. Every effort has been made to be as objective as possible and to deal with all factors realistically and rather conservatively. In a market which has never had the benefit of large scale construction and ready financing on reasonable terms, much will depend upon the results of such innovations and their acceptance in the market place.

Considerations with Respect to Unit Size

Something should be said as to what has been learned that would give some guidance to the proper distribution of housing provided by size of unit. The average (3.51 persons) and median (2.39 persons) size of household have been cited and they are, obviously, on the small side. The median is pulled down by the large proportion of single-person (19.9 percent) 2-person (23.1 percent) and 3-person (18.2 percent) households. Four and five person households amount to 22.4 percent, 6-9 person households 13.7 percent, and 10 and over, 2.7 percent.

This suggests that the need is for a distribution of units by size somewhat more heavily proportioned in the smaller sizes than is usual. There are some offsetting factors. Some of the single-person households are undoubtedly made up of young men who have postponed marriage partly because good housing was not available at a price they could afford to pay. Many Hawaiian families not only aspire for home ownership, but also a home where they may have room for relatives or for servants living in. Houses with too little space will not appeal to such families.

The opinion and advices of a prominent builder, the chief city planner, and others, were obtained on the question of size distribution. There was agreement that apartments or rental units should, as is generally the case, have a higher proportion of smaller units, and none of the larger units, as compared with sales housing. Also that sales housing should have a higher proportion of smaller units, and fewer larger units than is the case in the U.S. or most countries.

Based upon the information developed, the survey team suggests, as a general guide only, the following unit-size distributions for sales and for rental housing:

Suggested Unit-Size Distribution for Sales Housing

1 bedroom	30%
2 bedroom	50%
3 bedroom	15%
4 bedroom	5%

Suggested Unit-Size Distribution for Rental Housing

Efficiency	25%
1 bedroom	40%
2 bedroom	25%
3 bedroom	10%

Chapter VII

Urban Planning

Addis Ababa

The need for city planning in Addis Ababa has been recognized since the establishment of the city by Emperor Menelik. Two early city plans for Addis Ababa are known and were implemented sufficiently to have had an effect on the present form of the city. These were prepared under Italian Administration and were based on the segregation of various ethnic and religious groups and had other objectionable features which made them unacceptable to the Ethiopian Government. However, they did result in a regular road plan which can still be seen in many parts of the city.

Following World War II, Sir Patrick Abercrombie was commissioned to prepare a plan which was approved in 1954. This plan placed less emphasis on the details of streets and buildings and more on providing a policy for checking population growth using satellite towns. He also laid out the main road system, indicated the major land uses and created a system of neighborhood units.

Unfortunately, the major aspects of the plan were never carried out at the time due to lack of legislation and an administrative organization with authority to enforce the requirements. Nevertheless, certain parts of the plan were put to use.

Nothing more was done until some time later. Because of changed conditions the implementation of the Abercrombie plan was then no longer feasible. This was recognized by the Municipal authorities who decided that a new plan, which would incorporate as much as possible of the Abercrombie Plan, was needed. Therefore, in 1958, Bolton Hennessy and Partners, a British firm, was called on to advise on a new plan and on the establishment of a Planning Department.

Fortunately, by this time the Municipality had accurate maps and had completed a population and housing census. Other information in the form of traffc surveys and land use maps, being prepared by an urban geographer carrying out research into the physical, social and economic structure of Addis Ababa, were also available to assist in the planning process. Work on the new plan was carried forward with the guidance of Francis J. C. Ames who, unfortunately, had left the Department prior to the visit of the Survey Team.

A good deal has been accomplished and land use areas have been defined at least tentatively, although the Planning Department indicates that some changes are possible. At least one problem still remains to be solved. Apparently, neither the Municipality nor the Planning Department has the authority to restrict the construction of buildings which do not conform to the land use areas, which have been established.

The Department has to resort to persuasion, although it can hold out the threat that a non-conforming structure may be subject to expropriation and demolition at some future time; or that a residential structure erected in a commercial or industrial zone may be likely to have undesirable neighbors.

An excellent discussion of the "Plan for Addis Ababa" and of the land use zones is contained in an article by Francis J. C. Amos, which appeared in the Ethiopia Observer for 1962 (Vol. VI. No. 1). This locates three principal zones in the Central Area:

1. The Commercial Zone in the West.

2. The Central Business Zone

3. The Government Zone in the East

As indicated above, some modifications are being made by the Planning Department.

The residential zone covers the larger part of the existing city and includes most of the land presently used for dwellings. Much of the present dwelling stock in these residential areas consists of semi-permanent and sub-standard housing and a substantial amount is located on land which presently has a high value.

So far, relatively few high density apartment developments have been constructed and the Municipality would like very much to see some of the more centrally located residential areas utilized for this type of dwelling.

Unfortunately, the lack of a municipal sewage system makes high density construction in the central city unrealistic.

Furthermore, this inevitably means the destruction of substantial numbers of small relatively poor quality dwellings occupied in large part by low income families. Many such dwellings have already been destroyed to make way for large government and commercial buildings, and owners of some of these properties have been offered pieces of land elsewhere and in some cases cash reimbursement. On the other hand, many of the occupants are renters and may have been forced to move into other crowded rented dwellings, double up with other families, or move to outlying areas. Presently, there is no continuing program to provide for these unfortunate people and unless some effective relocation scheme is developed, continued demolition of the already short housing stock, coupled with rising in-migration, may cause serious problems in the very near future, even though efforts are being made to encourage the development of other cities and increased agricultural production in rural areas in hopes of diverting some of the migration which would otherwise flow into Addis Ababa.

Bahar Dar

One effort to decentralize industry and prevent undue concentrations of population involves the construction of a new city, Bahar Dar,[20] on the banks of Lake Tana in the northwestern part of Ethiopia. This will be an industrial city which will eventually draw many of its raw materials from surroudning agricultural areas.

The original idea for this city came from the Emperor himself. The Battelle Institute (Frankfurt) was commissioned to develop the economic plan and Professor Max Guther of the Technical University of Darmstadt, Federal Republic of Germany prepared the master plan for Bahar Dar.

At the outset, Bahar Dar was a village of about 2,000 population, but with the start of construction on the textile factory, the population rose to 8,000 people.

This factory will produce yarn, clothing and household linen, using Sudanese cotton until such time as the some 5,000 tons of raw cotton needed can be produced locally. This cotton will also yield as a by-product, 20,000 tons of cottonseed, which will be processed into oil. Cattle farms will be established, which will support a factory canning meat for export, as well as supplying meat and dairy products for the local population. Soap and gelatine factories as well as a tannery are also projected.

The plan will be carried out in three stages. The first, which will cover 10 years, will include the establishment of industries that will employ about 40,000 people. Ultimately, the plan calls for about 22 factories and a population of 300,000 people.

The housing for the bulk of the population of the new city is expected to cost from Eth.$2,500 to Eth.$3,125 in order that factory workers can pay for them. In general the houses will have only one or two rooms. Eventually, there will be three housing groups of about 10,000 persons in each. These will be separated by trees and planting. Each group will have churches, schools, kindergartens and shopping centers.

The center of the city will be on the west bank of the Blue Nile, connected to the opposite shore by a bridge which has already been completed.

An airport will be located near the lake and the area south of the city will be reserved for future industrial expansion. A power plant is presently under construction about 30 kilometers south of Bahar Dar at the foot of a waterfall of the Blue Nile.

Plans for 40 Cities

Another ambitious program involves the development of master plans for 40 cities and towns of Ethiopia excluding Addis Ababa, Asmara and other cities in Eritrea.

This program is being carried out by the Land and Technical Department of the Ministry of Interior. Invitations were issued and proposals have been received from a number of city planning firms in several countries to develop these plans but at the time of the survey teams' visit no contracts had been awarded.

These master plans will serve to guide future growth and more immediately to serve as a basis for the installation or extension of water and sewage systems, roads, streets and other public facilities.

In addition to providing technical assistance in planning, the Ministry of Interior may also assist municipalities in financing approved public improvements where their own resources are not adequate.

Chapter VIII

Land - Addis Ababa

General

The city of Addis Ababa covers some 218 square kilometers. The boundaries form a rough circle with a radius of some 7 to 9 kilometers and with the densely built up core located approximately in the center.

The city is divided into 5 sub-municipalities; Central, Northern, Eastern, Southern, and Western, each administered by a governor. These in turn are composed of one or more districts-10 in all within the city limits. At the present time the boundaries of these districts are undergoing some revision but in general they appear to follow roughly the boundaries of the Districts included in the 1961 Census of Population.

Within the city, there are substantial amounts of vacant land, none of it very far from the city center, as the crow flies, but sometimes relatively inaccessible because of lack of access roads. Furthermore, some of the land may not be easy to purchase.

Some of the districts which lie near the city center or centers (the latter term is probably more accurate since there are actually several centers of business and commercial activity), are quite densely populated. Even so, there are vacant tracts even within these districts.

Much of the vacant land, however, lies in three districts, Intoto (to the northeast), Yeka (to the southeast) and Karanio to the west of the center. Two other districts, Bole to the south and Lideta to the southwest also contain substantial amounts of vacant land.

Some of this land in addition to being relatively inaccessible is also somewhat rough and mountainous, particularly in Intoto and parts of Yeka. In the other outlying districts to the west, south and southeast the terrain is rolling to fairly level. Most of the vacant land is unimproved and some may be remote from municipal water lines and electric power lines.

Another problem which exists in Addis Ababa is that of unstable soils. In some areas Black Cotton soil is encountered and it is reported that even some of the red volcanic soils tend to swell and shrink depending on moisture content. These conditions may present real problems in building and result in increased costs due to the necessity for specially designed foundations or even piles.

Land Ownership

In 1961 a survey of land ownership in Addis Ababa indicated that 58 percent was owned by 1,768 proprietors (of over 10,000 square meters each) averaging 71,000 square meters each and 7.4 percent was owned by 24,590 proprietors (of less than 10,000 square meters each) averaging 150 square meters each.

Government agencies or foreign embassies owned 12.7 percent and the Church owned 12 percent. Royal lands and lands for which ownership was unaccounted for were 9.9 percent.

Of particular interest is the fact that only about 65 percent of the land in Addis Ababa is taxable. 21/

Land Costs

The cost of the land varies considerably, depending on its location within the city, and in recent years there has been a good deal of land speculation in popular residential areas.

It is reported that land is bringing from Eth.$100 to $200 per square meter in the high cost central city areas. Land along the Bole airport road has been as high as Eth.$8.00 to Eth.$15.00 per square meter but it is reported that these prices are declining because speculation may have been overdone and because this is a Black Cotton soil area and consequently building costs are higher. On the other hand, land adjacent to the old airport road is now reportedly bringing from Eth.$4.50 to $15.00 per square meter.

The Imperial Savings and Home Ownership Public Association reports that land on which houses they have financed were built cost from Eth. $5.00 to Eth.$10.00 per square meter, but that undeveloped land in outlying areas may still be purchased for as little as 50 cents per square meter, depending on location and amount purchased at any one time.

Land speculation is a recent phenomenon but as in any rapidly growing city this is bound to occur. It would seem, therefore, realistic that the municipality set aside, or if necessary, acquire while costs are still reasonable, land that could be reserved for housing low income families displaced in the central city.

Land Titles

As was mentioned earlier, a substantial number of high and middle income Ethiopians own land which they have either inherited or purchased. Until recently, the problem of obtaining clear title to land was often difficult in Addis Ababa because there was no effective mechanism for recording ownership. This apparently is still the case in the rural areas. In fact, it is reported that litigation over ownership of land and particularly over boundaries still occupy most of the time of the courts.

According to the Municipal Planning Department, it is now possible in Addis Ababa to secure a clear title by presenting satisfactory evidence of ownership and a survey made by the Cadastral Section setting forth the boundaries. The application for title is advertised in the paper for two weeks. At the end of this time a certificate of ownership, certified by the court, is issued. This is supposedly not subject to contest. However, there is evidence that this may not always be true. According to James Paul, Dean of the Law School,

Haile Selassie I University, the possibility of litigation always remains. Nevertheless, it appears that the situation is much better than it was and an effort is being made to register all titles in the city. Presently some 60 to 70 percent have clear title.

Land Tenure

While about 23 percent of the families in Addis Ababa owned their dwellings, according to the 1961 Census, it will be recalled from the "Survey of Housing Conditions", conducted by the Building College that by no means all of these owned the land on which the dwelling was located. (see Chapter V - The Housing Situation)

It appears to be common practice in Addis Ababa to lease land on which to build houses. In fact, the Kolfe aided self-help houses will be built on land leased to the occupants for a period of 20 years. Rents on leased land appear to be fairly low and in the Teklehymanot District, the average rent per dwelling site was $1.32 per month.

Land Taxes

In Addis Ababa land taxes are quite nominal as can be seen from the schedule of taxes given in Chapter XI. In the case of owner occupied dwellings only the land is taxed. These taxes range from a low of $.00075 per square meter (with minimum tax of $.75) to a high of $.10 per square meter (with a minimum tax of $5.00).

With rates as low as this it is not surprising that the total revenue from property taxes in Addis Ababa amounted to only about Eth.$700,000 last year. It would appear from this that more realistic property taxes are in order if adequate municipal services are to be provided and maintained.

CHAPTER IX

The Building and Building Materials Industries and Housing Costs

Building Industry

The building industry in Addis Ababa is comprised of a few large contracting firms, many of them foreign, and a large number of small contractors.

In order to be eligible to bid on government projects, contractors must register with the Ministry of Public Works. At the present time there are some 138 licensed contractors on the government register. These contractors are classified into categories permitting them to bid on jobs up to various costs levels. For example, some may bid on jobs costing up to Eth. $500,000, others on jobs up to Eth. $200,000, Eth. $100,000 and so on. Bids must be invited for any government job costing Eth. $5000 or more. Contractors are not required to meet any professional standards, although their financial status is a consideration.

The only statistics found on the construction industry in Ethiopia were reported in the Statistical Year Book--United Nations, 1963 and are for the year 1961. The estimates at that time were as follows:

1.	Number of licensed enterprises engaged on contract construction - - - - - - - -	125
2.	Employees -	30,000
3.	Wages and Salaries - - - - - - - - - - - -	Eth. $17,200,000
4.	Value added - - - - - - - - - - - - - - - - - -	Eth. $20,300,000

How much change there has been since that time is not known, although as was pointed out above, the number of licensed contractors has increased. So far as known none of these contractors have built housing for sale; that is, none are entrepreneurs in the housing field. However, some are interested, and given financing, a home building industry might develop.

Houses now being constructed are entirely custom built and most are for families in the high-middle or high income brackets. Many of the better quality houses have been built to rent to Europeans and Americans or to Embassies.

Custom building obviously results in higher costs than would be the case were housing constructed in groups, since there is no possibility of organizing work crews to produce at maximum efficiency because there is little chance to train crews for repetitive operations. Also land and materials cannot be purchased in quantity.

Building Materials Industry

The building materials industry in Ethiopia is relatively small although it produces most of the basic materials including cement, lime, brick, and concrete block. In addition, some plywood, concrete pipe, cement floor tiles, ceramic tile, lumber, wood sash and frames, doors, steel sash, marble and reinforcing bars are manufactured. Ceramic toilet bowls and bathtubs are also being produced in Asmara.

However, many of these materials and components are now produced in limited quantity and while cement is available in reasonably adequate amounts, since the opening of the cement plant in Addis Ababa, brick is in short supply even now. Similarly, concrete blocks are not always available in the quantity or quality required by contractors. It is reported that on large jobs some contractors make their own concrete blocks using small electric or gasoline powered block machines that produce a good quality block at the rate of 800 to 1000 blocks a day. The survey team saw these being used to make blocks for housing projects at two military establishments as well as for the pilot low-cost and aided self-help housing projects at Kolfe.

Another material which is definitely in short supply domestically is wood. In 1963, close to Eth. $9 million worth of wood and wood products were imported. No figures for 1964 are available.

Furthermore, the wood industry does not offer prospects for expansion because of the shortage of suitable structural woods in Ethiopia and the location of the remaining forests. In fact, if Ethiopia is to have a domestic lumber industry in the future, an extensive program of reforestation and control of cutting is essential.

Apparently, concrete block and some other cement products as well as wood sash and doors are produced very much on a custom basis and the small plants that manufacture them do not carry stocks on hand.

On the whole, the production of building materials has increased substantilly over the ten years from 1952 to 1963. These rates are shown in Table 11. Data for 1964 are not yet available but it is believed to be somewhat larger than in 1963.

On the other hand, it is generally agreed that should there be a substantial increase in construction, many materials would be in short supply since the capacity of the plants is not adequate to allow much expansion in production. This could result in some price increases unless shortages were met through imports.

The survey team was unable to find any published statistics on the number or capacities of the building materials plants in the various categories. However, the following information was supplied by the Ministry of Commerce and the Building College.

Table 11

Production of Building Materials in Ethiopia
(Including Eritrea Province)
Years Ending September 10 of years stated

	Unit	1955	1956	1957	1958	1959	1960	1961	1962	1963
Cement	Tons	21,769	26,366	22,508	31,701	25,665	28,251	29,905	44,380	33,274
Hydrated lime	Tons	640	--	--	--	2,515	2,507	4,538	5,438	4,40[illegible]
Timber	Cu. mtrs.	13,000	16,300	13,000	13,900	14,000	11,100	11,800	14,300	--
Plywood	Cu. mtrs.	60 **	--	--	--	--	50 **	n.a.	937	1,506
Clay Brick *	1000 pcs.	7,140	3,670	4,025	5,500	7,425	7,500	7,520	7,497	7,700
Cement Floor tiles	1000 sq.m.	43.0	15.0	27.3	25.5	33.0	36.0	--	52.0	35.7
Cement Blocks & Pipe	1000 No	228	240	115	127	227	317	--	324	232
Cement Brick ***	1000 pcs	--	--	100	101	214	213	168	167	168
Nails	Tons	200	--	--	571	549	495	1,056	--	--
Copper Wires & Cables	1000 mtrs.	--	--	--	--	--	--	213	-	--

* Production data for bricks (except 1955) do not include Eritrea.

** Converted from square meters into cubic meters by the factor of 1/500

*** In 13 Provinces.

Source. Statistical Abstract - 1964

There are three cement plants in Ethiopia. The plant in Dire Dawa has a capacity of 36,000 tons and that in Addis Ababa will have an ultimate capacity of 70,000 tons. These are owned and operated by the Ethiopian Cement Corporation. There is also a new plant in Massawa with a capacity of 70,000 tons which is privately owned but with government participation.

The plant in Addis Ababa also expects to start manufacturing asbestos cement roofing which should provide a welcome relief from the ubiquitous corrugated iron roofing.

The steel mill in Akaki produces 20,000 metric tons of reinforcing bars. But, it is reported that their costs are high because of the necessity of importing scrap.

The plywood plant has a capacity of about 25,000 cubic meters. It is reportedly planning to expand and establish a plant in Jima. It is also understood that it is considering producing other materials including prefabricated perlite concrete panels, wood products and possibly brick and tile.

There are also three brick plants in Addis Ababa and three small plants producing concrete block and other cement products. There are also a number of producers of brick in Asmara.

One of the major problems is in the field of plumbing supplies. Both galvanized pipe and fittings and especially cast iron pipe are reportedly often hard to obtain when needed. These, of course, are imported materials as are most other plumbing fixtures and fittings. Copper tubing is also available but has had only limited use.

The factor of transportation within the country also results in the use of substitute materials. For example, good sand, which is not available in the immediate vicinity of Addis Ababa, costs Eth. .10-Eth. .14 per cubic meter delivered in Addis Ababa, while it costs only about Eth. .2.00 per cubic meter at the sand pit about 100 kilometers away. Consequently, some concrete blocks are made from crushed red volcanic stone which is relatively soft and gives them a pink cast. Also in small dwellings, chica is sometimes used as a mortar for stone and brick walls instead of cement and lime mortar, since, according to the Building College, mortar represents 25 percent of the cost of a brick wall. However, the joints are pointed up with cement mortar to protect the chica from eroding.

No mention has been made of chica, the most prevalent of all building materials, at least in Addis Ababa. This, of course, is not a manufactured material but is site produced. However, at least in the cities and towns, it is likely that the wood used as the core of the wall is in most cases a purchased material as in all probability is the straw. Similarly, the labor to produce the chica mixture and apply it is most often hired according to the sample surveys made by the Building College in the Teklehaymanot District of Addis Ababa.

Building Costs

Building costs in Ethiopia are apparently somewhat above the average compared with 10 other African countries included in the "Pilot Enquiry into House Building Costs" undertaken by the Economic Commission for Africa. Admittedly the projects which were costed out for the study varied considerably in size, and the fourteen unit Ethiopian project, consisting of ten single family detached dwellings and two semi-detached houses was one of the smaller, which would tend to distort the data somewhat. In terms of the building costs in relation to the annual income of unskilled labor, Ethiopia was the highest of all countries and above the average in terms of the annual income of skilled labor. In terms of cost of materials per square meter of gross floor area, it was exceeded only by Mauritania and Upper Volta.

As to actual costs within the country, it was only possible for the survey team to make comparisons between the costs of the project mentioned above, which was built for employees of the Ethiopian Electric Light and Power authority at Koka Power Station about 100 kilometers from Addis Ababa and those reported in the capital city. The cost per square meter of the Koka houses was Eth.$132 and the cost of the house, excluding land, was 2.9 times the average annual income of the occupants, which ranged between Eth.$150 and Eth.$400 per month.

Building costs reported in Addis Ababa have ranged from a low of Eth.$76 per square meter for a small model chica house of about 55 sq. meters (including an Injera kitchen) constructed at the Building College, to a high of about Eth.$200 per sq. meter for some of the villas built with loans from the Imperial Savings and Home Ownership Public Association. These cost variations are, of course, due to a number of factors including quality of workmanship and materials, particularly finish materials and equipment. One builder uses the following as a rule of thumb in estimating moderate-cost villa construction: Eth.$180 per square meter for the first 100 square meters of floor area and Eth.$150 per square meter for space exceeding 100 square meters.

The costs of the villas financed by the Imperial Savings and Home Ownership Public Association have been ranging from about Eth.$140 per square meter to about Eth.$200 per square meter. The Association feels that Eth.$175 per square meter is a good average cost for villas of the quality they have normally financed.

The reported costs of apartment construction have varied from about Eth.$100 per square meter for walk-up types to about Eth.$250 per square meter for elevator buildings.

Four model houses constructed by the Building College give some clue to cost variations between different wall materials. These houses which were virtually identical, contained 45 square meters (except that the chica house had a 10 square meter Injera kitchen) for a total of 55 square meters. In all cases, foundations were of reinforced concrete

roofs were corrugated galvanized iron on wood trusses with ceilings of fiber board, floors were exposed concrete slabs troweled smooth. All had two bedrooms, combined living-dining room, small kitchen with sink and a bathroom with shower and w.c.

The costs of these houses without land were as follows

Chica house
Total cost - Eth. 4,227 or about Eth. 76.00 per square meter

Brick house (with chica mortar)
Total cost - Eth. 3,834 or about Eth. 86.00 per square meter

Concrete block house
Total cost - Eth. 4,369 or about Eth. 97.00 per square meter

Chica walls have been virtually "standard construction" in Addis Ababa for years, until very recently, and are generally considered to be the cheapest form of construction. This is due in part at least to the fact that most have no foundation except the poles supporting the wood "core" which are inserted into the ground and in part because of the minimum number and size of windows, doors and partitions normally used in these dwellings. When built in this way they are subject to water damage at the base of the walls and are costly to maintain. Their prevalence in the past has probably been due to the lack of other more permanent materials, high wages for skilled stone and brick masons, and to the fact that a substantial number of people, especially those immigratin, from rural areas, know how to build with this material. It should be pointed out that even many of the larger and better dwellings were built of chica in the past, although stone walls were also used, but to a limited extent. However, the experience at the Building College seems to show that chica is not substantially cheaper than brick when built with similar foundations, an equivalent number of doors, windows and interior partitions and the same kind of roof. In fact, as was mentioned earlier, if the relatively large amounts of wood used in the framework on which the mud and straw are plastered were employed as fuel, enough brick could be burned to construct a similar size house.

On the other hand, for those very low income families who cannot afford to buy more modern materials or hire masons, the chica house is an infinitely better one than the scrap tin, wood and cardboard shack so prevalent in many developing countries. When built in their primitive form, with family labor, even with the help of a paid "chica" expert, they are undoubtedly quite cheap.

There is relatively little information on the cost of developing land since so many lots are undeveloped or improved on an individual basis. The costs of developing the site for the dwellings built at Koka Dam in 1960, were on the order of Eth. 1.35 per square meter. This included water supply, storm and soil water drainage, access roads and septic tanks.

Another estimate, made in Addis Ababa in 1965 for land improvements, consisting of roads, sidewalks, water, sewer and drainage was approximately Eth. 1.90 per square meter.

Chapter X

Education and Training

Housing in Addis Ababa is too expensive!

Some building materials are high in cost when compared to other cities in Africa and elsewhere. But the cost of materials is not the only reason for expensive houses. Nor is land because land which is not too expensive is available.

Housing costs too much in Addis Ababa because of waste--waste of time, energy and skill.

Reducing building costs in Addis Ababa will depend upon: (1) more able entrepreneurship (management), and (2) more skillful workmenship.

A comparison is offered, not to be invidious, but helpful. The American carpenter, plumber, electrician and their contractor boss are the most highly paid in the world. But they build splendid houses which can be sold for 2--2½ times the purchaser's annual income.

To reach this comparative level of housing costs Ethiopia must have more trained architects, engineers, superintendents, foremen and skilled craftsmen.

At the time of the drafting of the Second Five-Year Plan, the Planning Board made some estimates of Ethiopia's manpower requirements. In 1962-63 a UNESCO study was made of the country's need for investment in education. In the spring of 1964 the Economics Department of Haile Selassie I University did a survey of high-level manpower with the assistance of Fulbright Professor, Arnold Zack. At the same time USAID Higher Education Advisor, Robert LaFollette, did a Reconnaissance Study of the University exploring the requirements for expansion of the University's facilities. I.L.O. has provided the services of Robert Jones as consultant to the Labor Department of the Ministry of National Community Development for establishing a manpower advisory committee to collect data on labor supply and demand.

Under a USAID contract, Education and World Affairs Council did a preliminary study of manpower needs and educational capabilities in November and December, 1964.

During the period of the housing survey, an I.D.A. *education team was in Ethiopia studying the request of the Ministry of Education for a loan for school construction and teacher education.

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* International Development Association, an affiliate of the International Bank for Reconstruction and Development (World Bank)

USAID, Peace Corps and the Fulbright Exchange Program are only some, but perhaps the most significant, channels through which Americans are assisting Ethiopians with development of their elementary, secondary and vocational schools, colleges and university.

Manpower for Housing

Professional.

For purposes of the survey team it is sufficient to report that all studies indicate a continuing deficiency in trained manpower at all levels of the building industry.

Total enrollment in the Building College for the final semester of this academic year was 107 and in the College of Engineering, 200. Graduates during the next five years are expected to be 145 and 98, respectively. According to the Ministry of Education, 115 students went abroad, 22 to the United States, for engineering study during the first 11 months of 1964.

There were 307 graduates of Haile Selassie I University in 1964. Graduates in selected fields related to the building industry were: Bachelor of Science--Civil Engineering 6, Electrical Engineering 10, Mechanical Engineering 4, Building Engineering 21; Diploma in Building Engineering 3; Bachelor of Commerce 7; Bachelor of Arts--Economics 16, Public Administration 12.

In 1964, Arnold Zack estimated current and projected (1972) manpower needs within the limits of the information available to him. Table 12 presents his data on four occupations related to the housing industry.

For many future years deficiencies in manpower supply will be filled as now, by foreign technicians, advisers and consultants related to assistance programs or employed directly by private enterprises or agencies of the Imperial Ethiopian Government. At the higher level this will be inevitable because professional and managerial manpower is that without which self-sustained economic growth is an illusory dream.

The UNESCO team said it thusly, "In a country in process of rapid economic growth, the absence of skilled manpower at any level will be an obstacle to development, but the higher the level at which the manpower is lacking the more serious will be the obstruction caused."[22]

Craftsmen

As important as they are, architects, planners, engineers and bankers can not build houses. Masons, carpenters, plumbers and electricians are the skilled craftsmen who do the job. They, of course, must have the labor of others who dig and fill ditches, pour concrete and do the landscaping.

Table 12

Employment and Manpower Needs, 1964 and 1972

	Architect and Town Planner	Civil Engineer	Electrical Engineer	Mechanical Engineer
Employment and Manpower Needs 1964				
Ethiopians	5	83	21	16
Foreigners	16	58	28	50
Total	21	141	49	66
Vacancies	8	14	9	5
Needs 1964	29	155	58	71
Manpower Needs 1972				
Currently Employed Available 1972	5	79	20	15
University Graduates	17	68	33	33
Additional Overseas Graduates	10	114	80	62
Total Available	32	261	133	110
Deficit	32	200	196	156
Needs 1972	64	461	329	266
Deficit (Percent)	50	43	60	59

The 40,000--50,000 workers involved in the building industry, largely public works, in Ethiopia today learned their trades on-the-job without apprenticeship. As described in Chapter IX, this does not produce an efficient labor force.

As reported in Chapter III, literacy in Addis Ababa is 32.12 percent; among males, 46.3 percent. Among males of the age of the labor force, 20-54 years, literacy is 55.45 percent. This means that simple instructions can not be read by approximately half of the workers, to say nothing of blue prints.

At the present time there are only 1,748 students in technical courses at the secondary level in all of Ethiopia. Only a small portion of these will find their way into the building crews in Addis Ababa.

Plans are being made by the Ministry of Education for 42 comprehensive high schools, 10 well-equipped technical schools and the training of vocational teachers for secondary schools and apprenticeship programs.

Apprenticeship training will be conducted in cooperation with employers and labor unions, in technical schools and on the job. The Ministry of Education and the Department of Labor of the Ministry of National Community Development will cooperate in sponsorship and direction of this program.

USAID, UNESCO, I.F.A. and I.L.O. are involved in assistance with funds and/or advisers in the development of these programs of education and training from the professional to the worker level.

Ethiopia is moving vigorously to equip its people for effective participation in modern agriculture and industry.

The Second Five Year Plan allocated Eth.$165.4 million to education at all levels. For primary and secondary schools, Eth.$11.8 million for capital and Eth.$106.3 million for operating expenditures, a total of Eth.$118.1 million. For higher education, Eth.$7 million for capital, Eth.$24.3 million for operating expenditures and Eth.$8 million for study abroad, a total of Eth.$39.3 million. Foreign resources of Eth.$8 million were also allocated to Haile Selassie I University.*

This ambitious program is being carried out. It will do much to alleviate the manpower shortage which results in the waste of time, energy and money in the building industries and makes modern, well-equipped housing too expensive in Addis Ababa.

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* Second Five Year Development Plan, 1963-67 G.C., Imperial Ethiopian Government, Addis Ababa, October 1962, p 269.

But after government and educational institutions have done all possible to educate and train people for effective and rewarding work, the industries they serve still have an inescapable responsibility for particular, intensive job training at all levels--from top management to guards and messengers. Hard economic facts of life make it so--even more so as the economy develops. Any inefficient enterprise, one which does not maximize its productivity per worker, goes bankrupt. Consumers will not subsidize inefficiency!--not in the long run!

Ethiopian Airlines is a dramatic example of this economic reality. Its continuing intensive training programs during the twenty years of its service have paid handsome financial dividends to its sole stockholder--the Imperial Ethiopian Government. Its shops and offices are marvels of productivity. Its employees, 92 percent Ethiopian, are eloquent testimony to the simple economic truth that efficiency is the product of education and training.

Without these twenty years of continuous education and training, Ethiopian Airlines would simply be one more small national airline--a thing of pride and beauty perhaps, but an expensive luxury, heavily subsidized from government funds--a "shiffta"* stealing from the impoverished public treasury.

For this reason, the survey team has recommended in other places of this report, programs of apprentice training of workers and builder education for contractors. It has suggested that in the interim period of education, training and development, some particularly qualified Americans fill certain manpower gaps, not just "telling" Ethiopians how to do this-or-that, but actually doing it with and for them.

One should assist in establishing a Municipal Authority to formulate housing policy, locate funds, develop plans and above all else, provide houses for those unfortunate and resentful persons whose homes, however pitiful they might seem, are bull-dozed aside to make way for still another public edifice. Eventually he should also assist in the development of an authority within the central government to have nationwide responsibility.

Still another should assist contractors develop efficient techniques of organizing, financing and developing cooperative housing projects and then remain to teach and train leaders in the management and development of their cooperative communities.

And still another should assist the industry with its apprentice training programs--spreading its costs over projects of sufficient size so as to achieve actual reduction in housing prices.

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* Amharic for "highway robber"; perhaps in this context "airway robber".

Chapter XI

Legislation and Regulations

Housing legislation per se, does not exist in Ethiopia. However, certain legislation will be of concern to those developing housing programs in Addis Ababa and other places in Ethiopia.

Taxation on Real Property - Addis Ababa

The "Addis Ababa Land and Building Tax Regulation, 1964", Legal Notice No. 301 of 1964, published in the Negarit Gazeta, 30th December, 1964, 24th Year - No. 5, provides for the assessment and notification of tax upon all land within the city. All taxes are to be paid to the Awradja Office of the City not later than 30 Guenbot (April 22) of each year. Provision is made for summons, appeal, penalty and exemption of taxes on land and buildings of the government, churches, mosques, hospitals and schools.

Building tax is payable only if the building yields rental income or is used for business purposes. In other words, owner-occupied homes are not taxed. Where applicable, building tax is 2% of the annual rent or assessed rental value.

Summarized below is the schedule of land tax assessed according to location, accessabiltiy and use: (Eth.$)

	Rate/m²	Minimum Tax
First Grade Zone, Section 1	.10	$5.00
" " " " 2	.08	4.00
" " " " 3	.06	3.00
Second " " " 1	.03	1.50
" " " " 2	.02	1.00
Third " " " 1	.004	2.00
" " " " 2	.00075	.75

Government of Addis Ababa

"Charter of the City of Addis Ababa", General Notice No. 172 of 1954, Negarit Gazeta, provides for a Municipal Council composed of 30 persons, 20 of whom are elected by 10 districts, eight appointed by Ministries of the Central Government plus the Kantiba (Mayor) who serves as President and the Vice-Mayor, both of whom are appointed by the Emperor.

The Council has the usual powers of a municipality with local autonomy. It prepares its own budget, levies and collects taxes and fees, buys and sells land, provides for public works, social welfare and law and order.

In the event of the breakdown of governmental processes, the Ministry of Interior has the power to suspend the council for three months and vest all power in the Kantiba. At the end of three months power must be returned to the municipal council.

The Kantiba is appointed by the Emperor for an indefinite tenure from a list of three nominees submitted by the municipal council. The Vice Mayor is also appointed by the Emperor. The Kantiba is responsible for the maintenance of law and order and thus commands the police force, although the police are under the general control of the Ministry of Interior.

Control of Cities Other Than Addis Ababa

"A Proclamation to Provide For the Control of Municipalities and Townships," No. 74 of 1945, Negarit Gazeta, 30th March 1945, 4th Year - No. 7., provides for municipal councils of seven members elected by property owners of towns and cities and other members appointed by the Governors-General of the Provinces with authority to propose budgets, taxes, fees, public works and services and internal regulations and to exercise general control.

However, all decisions of the municipal councils must have the approval of the Ministry of Interior of the Imperial Ethiopian Government.

Savings & Loan

"A Decree to Provide for the Creation and Regulation of the Imperial Savings and Home Ownership Association," Decree No. 47 of 1961, Negarit Gazeta, 8th September, 1961, 20th Year No. 19, amended, re-numbered and incorporated into Proclamation No. 188 of 1962, Negarit Gazeta, 30th April, 1962, 21st Year No. 11, established a savings and loan society to which grants of US$200,000 by USAID and a tract of land of matching value by the Imperial Ethiopian Government provided initial financing.

Its purposes were "to promote thrift by providing a convenient and safe method for people to save and invest their money and to provide for the sound and economical financing of the individual's ownership of his own residence."

All persons having savings accounts or loans from the Association are members thereof, with one vote each. By-laws are adopted and a Board of Directors elected by the members.

The Association has power to borrow money by pledging or mortgaging its assets or by selling five-year debentures with interest rate ½% greater than the rate of interest paid on savings deposits; on 6-10 year debentures at 1% more than interest on savings deposits.

The Association is required to establish a 15% General Reserve out of earnings. Dividends are distributed to the members ratable on the withdrawal value of their savings accounts.

The Association may make real estate loans on first mortgages not to exceed 75% of the value of the property of Eth.$20,000, whichever is less, on single-family dwellings or Eth.$30,000 on two-family dwellings at an interest rate of six percent on single-family dwellings and seven percent on two-family dwellings. It may charge a fee of five percent to cover its costs of making the loan. The loan is payable in equal monthly installments over a period not to exceed 16 years.

Provision is made for liquidity requirements, examination, audit, foreclosure rights and tax exemption for a period of five years.

Cooperatives

Housing cooperatives are a new concept in Ethiopia. One has been organized and its members are now buying the land for their housing development. Others are considering this means of mutual action to achieve home ownership. Of greater importance is the fact that some entrepreneur-contractors are thinking of cooperatives as a means of developing tracts of residential housing with single mortgage financing. These would be what Americans call "sales-type coops".

Legislation providing juridical personality to cooperatives of all kinds has been prepared by the Cooperative Department of the Ministry of Community Development. It has been approved in both Houses of the Legislature and is expected to clear the Council of Ministers and be promulgated in the immediate future. It will be known as "A Proclamation to Provide for the Formation of Co-Operative Societies."

Provision is made for the formation and registration of societies with juridical personality and either limited or unlimited liability, for "one-member one-vote" principle, for supervision of societies by a Registrar of Cooperatives, including audit, inquiry, inspection, arbitration, decision and appeal of dispute to a Co-operative Tribunal.

The legislation provides adequate basis for the promotion, development and supervision of housing cooperatives as well as other kinds.

Community Development

The Ministry of Community Development is responsible for affairs having to do with Labor, Cooperatives and Social Welfare. It is directly or tangentially concerned with manpower surveys, juvenile delinquency, "social defense", rural social development and social work centers in Addis Ababa.

"An Order to Establish the Ministry of National Community Development and to Define the Powers and Duties Thereof,", Order No. 15 of 1957, Negarit Gazeta, 29th January 1957, 16th Year, No. 5, established a coordinating, directing body, to give special emphasis to "Special Areas" village communities, markets, health and welfare services.

"An Order to Establish the Board of National Community Development," Order No. 16 of 1957, Negarit Gazeta, 16th Year, No. 5, 29th January, 1957, provided for a Board, appointed by the Emperor comprised of members from the Ministries of Public Health, Education and Fine Arts, Interior, Agriculture and the Bishop, to coordinate the activities of the various ministries in accomplishing the purposes of the Ministry of Community Development.

Investment Law

"The Investment Decree of 1963", Decree No. 53, Negarit Gazeta, 16th September, 1963, provides incentives for the investment of foreign or domestic capital in new industries in Ethiopia.

An Investment Committee in the Ministry of Commerce and Industry, composed of the Ministers of Commerce and Industry, Finance, Agriculture; the Governor of the National Bank of Ethiopia and the General Secretary of the Planning Board recommends measures taken with respect to facilities, tax exemptions, benefits and privileges to be accorded to prospective investors.

Provision is made for incentives to newly established agricultural, industrial, mining, transport and touristic enterprises; or to expansion of such presently existing enterprises. If a newly established enterprise invests Eth.$200,000 it may qualify for income tax relief for five years; if an expansion involving Eth.$50,000, for three years. Certain import and export duties and taxes may also be waived.

Foreign exchange for remittance of profits, repatriation of capital, payment of principal and interest on loans and payment of foreign personnel is assured.

Regulations

Zoning regulations do not exist in Addis Ababa. When permits are secured from the Municipal Planning Department, applicants may be advised of zoning plans based on the town plan under revision. They may be told that they risk condemnation in the future if they insist upon constructing a non-conforming building. But there is no authority which can enforce such recommendations at this time.

A building code, in the sense in which Europeans or Americans think of it, does not exist although there are municipal rules for the construction of new buildings. These apply to those buildings

for which permits must be secured from the Municipal Planning Department --those costing Eth.$10,000 or more. A copy of these rules is found in the appendix to this report. They have to do with adequacy of drawings, distribution of space, set-backs and minimum distances to property lines.

A Certificate of Compliance with these rules must be filed. Municipal fees, under the rules, are Eth.$0.20 for each square meter of floor space and cubic meter of wall construction.

Footnotes

1. Material for this historical sketch of Addis Ababa was drawn largely from an article by Dr. Richard Pankhurst, "The Foundation and Growth of Addis Ababa to 1935," published in the Ethiopian Observer, Volume VI, No. 1, 1962.

2. "Addis Ababa Social Structure Survey" by Francis J. C. Ross, General Technical Advisor to the Municipality of Addis Ababa, Ato Yohannes Volde Gerima, now Assistant Mayor, Municipality of Addis Ababa and Mrs. Helene Castel, Dean of the School of Social Work, Haile Selassie I University.

3. Information on social problems of Addis Ababa largely from the Final Report of the United Nations Consultant on Social Defense to the Ministry of Community Development, Government of Ethiopia by Jack Riley, December 1964.

4. Interest paid on savings is not compounded.

5. From National Bank of Ethiopia, Quarterly Bulletin, June 1964.

6. Report on Census of Population, 10-11 September, 1961. Municipality of Addis Ababa.

7. "Survey of Housing Conditions I and II-Totals and Averages", May 1962 and July 1962, Ethio-Swedish Institute of Building Technology.

8. "Study of Public Health and Sanitation Requirements, City of Addis Ababa", September 1964. World Health Organization, Regional Office for the Eastern Mediterranean.

9. Report of an Urban Survey of Nazareth (A Pilot Study), Imperial Ethiopian Government, Central Statistical Office, Addis Ababa, December 1964.

10. Statistical Abstract, 1964, p. 10. Imperial Ethiopian Government, Central Statistical Office, Addis Ababa.

11. Statistical Abstract, 1964, pp. 13-14

12. Source: Ministry of Commerce.

13. "Study of Recent Demographic Levels and Trends in Africa", UN/ECA File No. SOC200.

14. Statistical Abstract, 1964, p. 117.

15. "Considerations on Migration in Addis Ababa" by Suzanne Comhaire-Sylvain, ST:/UNB/AF/27, April 5, 1962.

16. Report on Census of Population, Municipality of Addis Ababa, 10-11, September 1961.

17. Statistical Abstract, 1964, p.xi.

18. Statistical Abstract, 1964, p. 131. See Appendix A.

19. "Addis Ababa Social Structure Survey", Part I, Summary of Findings of a Survey Carried out in 1960, by Francis J.C. Amos.

20. "Bahar Dar, A New City Developing in Ethiopia", Ethiopian Trade Journal, Vol. 2, No. 2, Oct. 1962.

21. "The Foundation and Growth of Addis Ababa to 1935," by Richard Pankhurst, Ethiopian Observer, Vol. VI, No. 1, p 52.

22. Educational Programming Investment Mission, March 1963, UNESCO, p. 37.

Appendix A

Civilian Employment Paid By The Head Offices Of The Government Ministries And Departments In Addis Ababa By Level Of Income

(Including allowances, before tax)
(Excluding Defence Ministry, but including Municipality of Addis Ababa)

Salary Group	Tahasas * 1953 E.C. Number of Employees
Under E$25	5,677
$25-50	5,018
$50-75	1,314
$75-100	618
$100-150	1,522
$150-200	1,353
$200-250	1,022
$250-300	668
$300-350	502
$350-400	497
$400-450	280
$450-500	218
$500-600	392
$600-700	132
$700-800	134
$800-900	62
$900-1,000	23
$1,000-1,500	139
$1,500 & over	141 **
Totals	19,812

*Tahasas 1953 E.C. is for the month ended January 10, 1962.
** Including foreign experts employed by the Government. The coverage of the latter is incomplete.
Source: Processed from payrolls of the various Ministries and Departments concerned by the Central Statistical Office. Appears in Ethiopia, Statistical Abstract, 1964. Prepared by Imperial Ethiopian Government, Central Statistical Office, Addis Ababa, P.131.

Appendix B

Municipal Rules for Construction of New Buildings

Note: This is a modification of two separate translations from the Amharic and cannot be certified as completely accurate.

1. A site plan must be submitted drawn at a scale of 1:500 or 1:200. The North direction must be shown.

2. A plan of the building, the facade, cross sections showing the foundation and ceiling (and roof) and other important details must be drawn at a scale of 1:50.

3. When the new building to be erected is a two-story or multi-story building, all details must be shown at a scale of 1:50.

4. It is essential that the sewage system be shown in detail, including the reservoir or septic tank for the sewage system.

5. A short report must be submitted with the plans describing the material, painting and color of the exterior walls.

6. To provide satisfactory sunlight for the living room, dining room and bedrooms, a ratio between floor and window area of 1:6 must be maintained. On the other hand, a ratio of 1:8 is required for the kitchen and lavatory (or bathroom).

7. The total area of a new building must not be more than 1/3 of the area of the building site. The remaining 2/3 must be open area in the form of a garden, porch (terrace) or lawn.

8. In the case of shops the requirements set forth in Item 7 do not apply.

9. Walls of buildings containing windows or doors shall not be less than 3 meters from the adjoining property line. Where there are no openings in the wall, a distance of not less than 1-1/2 meters shall be maintained between the wall of the building and the adjoining property line. However, in the case of a servant's house or other similar small house it is permissible to locate the walls of such house at the property line, provided they have a foundation of at least 30 cm, no openings overlooking the adjoining property and that watersheds (gutters and downspouts) do not protrude on the adjoining property and that they divert water away from the adjoining property.

10. When a new house is built in a compound with existing houses, a distance of 6 meters must be maintained between the new house and any existing house, except that the distance between walls of houses one of which does not contain any openings, may be 4.50 meters.

11. Any house erected facing an existing road or projected road must be 5 meters back from the edge of the road. However, shops may be erected in line at the edge of the pedestiran walk.

12. The Municipality will charge a fee or tax on new buildings. These fees are based on the total area of the floors (measured in square meters) plus the total volume of the walls (measured in cubic meters). The fee is Eth.$0.20 per square meter and Eth.$0.20 per cubic meter.

13. The approved "permit" to build issued by the mayor must be kept in a convenient place and shown to municipal employees on request. Municipal inspectors may halt any construction which involves alterations or changes from those specified in the "permit", or any construction for which no permit has been issued. Upon completion of the construction, the Mayor will issue the owner a certificate to the effect that the building was completed in accordance with the specifications furnished by the municipality.

14. If the owner is found to have made any changes or alterations not specified in the permit to build, the municipality can force him to make any necessary corrections or can require the demolition of the entire building or any part not in accordance with the terms of the permit.

15. The owner is fully responsible for the proper erection of the building, unless he has assigned the responsibility to a qualified technician or specialist (contractor).

16. A permit to build is valid only for one year from the date of issue.

Appendix C

Partial List of People Interviewed by the Survey Team

American Embassy

The Honorable Edward M. Korry, Ambassador
Mr. Donald L. Woolf, Counselor for Economic Affairs
Mr. Robert H. Wenzel, Chief, Political Section

United States A.I.D. Mission to Ethiopia

Mr. Willard H. Meinecke, Director
Mr. Edmund F. Overend, Deputy Director
Mr. Donald F. Miller, Acting Program Officer
Dr. Noel T. Myers, Chief, Education Advisor
Mr. John Moller, General Engineering Advisor
Mr. Arthur W. Tunnell, Controller

Imperial Ethiopian Government

Ministry of Finance

His Excellency, Mulatou Debebe, Vice Minister

Ministry of Public Works and Communications

Ato Mulugeta Sineghiorghis, Assistant Minister
Mr. Petrovic Branko, Chief Architect and Town Planner
Mr. Serge Soulie, Architect

Ministry of National Community Development

Ato Tessa Bushen, Assistant Minister

Central Statistics Office

Ato Habtu Esheta, Assistant Minister

Ministry of Interior

Ato Mogus Kifle, Director General, Land and Technical Dept.

Ministry of Commerce and Industry

Ato Tekle Haimanot, Director, Industrial Section

Wolamo Awraja

Kegnazmatch Wolde Sanait, Governor

Municipality of Addis Ababa

Ato Yohannes W. Gerima, Assistant Mayor
Ato Getachew Mahtane Selassie, Director General, Planning Department

Haile Selassie I University

Mr. James C.N. Paul, Dean, Faculty of Law
Mrs. HelaneCastel, Dean, School of Social Work

Haile Selassie I Foundation

Ato Abebe Kebede, Director

Ethio-Swedish Institute of Building Technology

Ato Neigzy Tabreredhin, Dean
Mr. Bernhard Lindahl, Architect, Information Section
Professor Strahle, Director of Research
Miss Sable, Sociologist

United Nations Economic Commission for Africa

Mr. Arthur Twing, Advisor to the Secretary General
Mr. Marc Herfin, Regional Advisor on Housing Policy
Ato Habte Selassie, Engineer, Housing Section
Mr. Chinwuba Uzadi, Town Planner
Mr. Art Corney, Regional Advisor, Cooperative and Aided Self-Help Housing
Mr. Oscar Spencer, Financial Advisor
Mr. Ranjan Kumar Som, Demographer

Financial Institutions

Imperial Savings and Home Ownership Public Association

Ato Getachew Tessema, Manager
Ato Abdul Sared Ahmed, Acting Manager
Ato Bekele Dina, Architect - Engineer

Development Bank of Ethiopia

Ato Bekele Nadi, Deputy General Manager and Legal Counsel

Commercial Bank of Ethiopia

Ato Taffara Deguefe, General Manager

Imperial Insurance Co.

Mr. Alex Vagrapks, General Manager

Chamber of Commerce of Addis Ababa

Ato Tulu Gula, Secretary General

Architects, Engineers, Contractors

Mr. Askelund, Director, Norconsultants
Mr. Reyne Kyllingstad, Architect, Norconsultants
Mr. Zaman Enav, Architect, Enav and Tedros
Mr. Michael Tedros, Architect, Enav and Tedros
Mr. Alexander P. Myriallis, Civil Engineer--Building Contractor

Businessmen--Employers

A.Besse & Co.

Ato Omer, Director of Personnel

Ethiopian Airlines

Mr. J.I. Greenwald, General Manager
Major Senret Mediane, Deputy General Manager
Ato Mekuria Aorku, System Director, Industrial Relations

Mitchell Cotts & Co. (Ethiopia) Ltd.

Mr. P.A.P. French Seytagh, Manager, Administrative Division

Shell Ethiopia, Ltd.

Mr. Paul Fernandez, Finance Manager
Major Telele Cherinet, Personnel Manager

Others

Embassy of the Federal Republic of Germany

Mr. Hans von Stein, First Secretary, Commerical Affairs

Cooperative Home Ownership Association

Ato Deressegne Ayalew, President (from Bahar Dar Textile Mills, S.C. and Debre Berhan Wool Factory)
Ato Asnake Taddese, Member (from Imperial Highway Authority)
Ato Johannes Abraha, Member (from Imperial Highway Authority)

Military Assistance Advisory Group

Major William H. Revell
Captain Frank F. Grandone