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**ZIMBABWE
SHELTER
SECTOR
ASSESSMENT**

JANUARY 1981

**AGENCY
FOR
INTERNATIONAL
DEVELOPMENT**



OFFICE OF HOUSING

UNITED STATES INTERNATIONAL DEVELOPMENT COOPERATION AGENCY
AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON D C 20523

FOREWORD

The new Government of Zimbabwe faces significant challenges in the shelter needs of its people. This study was conducted in August, 1980 by the Planning and Development Collaborative (PADCO) under the auspices of the Office of Housing of the Agency for International Development. The purpose of the study was to develop information and recommendations about the shelter sector in Zimbabwe that will help the Government meet the challenges.

The study team included James Wright, David Oakley, and Lee Baker of PADCO.

The findings and recommendations of the report have been reviewed in detail and discussed with representatives of the Government of Zimbabwe. While the report results from close cooperation of the team and its counterparts, it is not to be interpreted as an official position of either the Government or the Agency for International Development.

We hope, however, that the Government of Zimbabwe will find the report and its recommendations useful as it formulates and implements shelter programs.



Peter M. Kimm
Director
Office of Housing

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TABLE OF CONTENTS

	<u>Page</u>
TABLE OF ABBREVIATIONS	1
CHAPTER I	
CONCLUSIONS AND RECOMMENDATIONS	1
A. Problems and Constraints to the Adequate Provision of Housing	1
B. Recommendations	7
CHAPTER II:	
THE OVERALL CONTEXT FOR ACTION	11
A. Country Situation	11
B. Urban Housing Stock	28
CHAPTER III:	
SHELTER INSTITUTIONS AND PROGRAMS	47
A. Government Administrative Structure	47
B. Housing Program	58
CHAPTER IV:	
INSTITUTIONAL SHELTER DELIVERY SYSTEM	73
A. Land	73
B. Public Utilities and Infrastructure	74
C. Overview of the Zimbabwe Construction Sector	76
D. The Housing Finance System	85
E. Rural Housing	90
F. General Environmental Activities, Issues and Considerations	94

TABLE OF ABBREVIATIONS

AMDP	African Manpower Development Program
CADCO	Central African Power Company
CSO	Central Statistical Office
DS/H	Office of Housing, AID/Washington
ESC	Electrical Supply Company
ESF	Economic Support Funds, AID
GOZ	Government of Zimbabwe
HD3B	Housing Development Services Branch
HG	Housing Guaranty Program
IIPUP	Integrated Improvement Program for the Urban Poor
MDF	Ministry of Finance
MOH	Ministry of Health
MLGH	Ministry of Local Government and Housing
PVO	Private Voluntary Organization
RHUDO	AID Regional Housing and Urban Development Office (Nairobi, Kenya)
HABITAT	United Nations Center for Human Settlements
UNDP	United Nations Development Program

CURRENCY EQUIVALENTS

Currency Unit = Zimbabwe Dollar

US\$1.00 = Z\$0.625

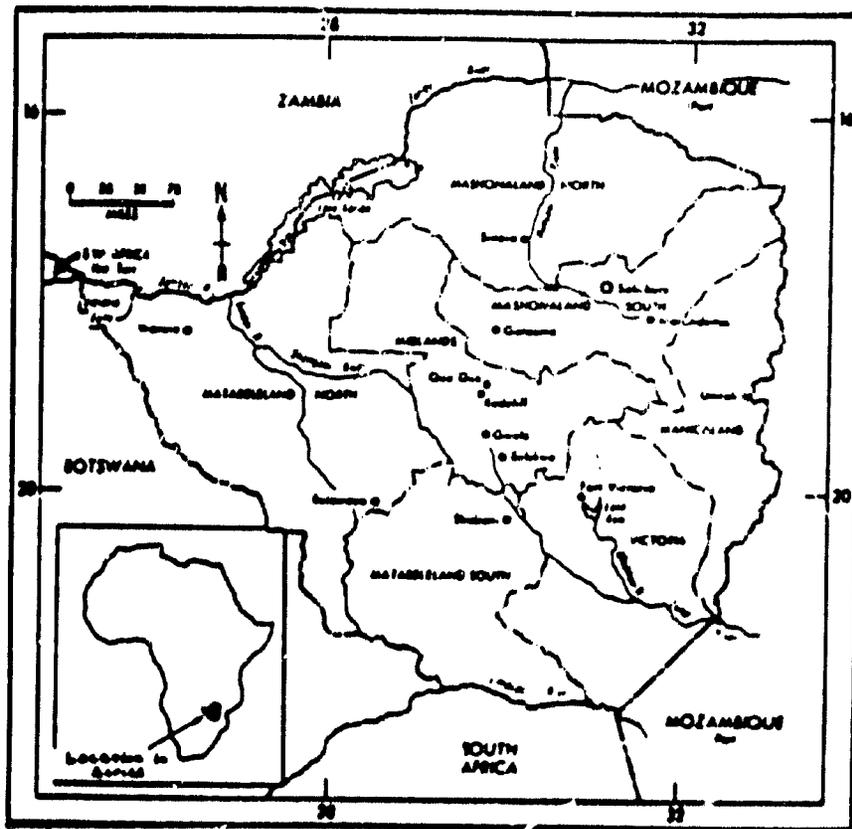
Z\$1.00 = US\$1.60

METRIC EQUIVALENT

1m² = 10.75 square feet

FIG 1

Zimbabwe



Map prepared from data on available regional structure of government

CHAPTER I

CONCLUSIONS AND RECOMMENDATIONS

A. PROBLEMS AND CONSTRAINTS TO THE ADEQUATE PROVISION OF HOUSING

The major characteristics of the existing housing supply and demand system are discussed in Chapters II-IV. The principal constraints and problems which inhibit the supply of housing, particularly to low income urban households as well as their effective demand for such housing, are summarized below together with recommendations to improve the situations.

1. Principal Constraints in the Supply of Shelter

a. Administrative Constraints

(i) Coordination. Many significant changes in the roles and relationships of the present government structure are already taking place. Many more can be expected. The process will place a severe burden on the existing channels of communication as ministries find themselves facing changing responsibilities. These types of anticipated changes will have a great impact on the ability of the government to plan and coordinate the planning, financing and implementation of housing programs and their complementary urban services.

(ii) Research and evaluation. The GOZ has just recently begun to study and understand the target groups which are presently benefitting from its higher density housing schemes. Research on urban household income distributions (as opposed to distributions based only on formal wage employment), for example, in addition to ultimate beneficiary preference surveys for different housing types and site layout designs are sorely needed. This type of information would greatly enhance the government's ability to formulate and implement national housing policy, plans and programs. Knowledge of the low income target population is especially important given the need for the GOZ to dramatically reorient current housing production to meet the emerging low income demand in urban areas.

b. Technical Constraints

(i) Norms and standards. Present housing standards have been conceived in terms of an acceptable minimum completed unit rather than in terms of affordability linked to a range of target income groups. This approach limits the housing options available to low income target groups and contributes to the severe overcrowding situation presently existing in Zimbabwe's main urban centers. The costs associated with the concept of the "ultra low cost" unit which attempts to provide a

completed unit affordable to very low income levels have probably been reduced as much as possible (in fact, the unit may require some technical upgrading to make it suitable for easy owner expansion); yet this unit type is presently barely affordable to households below the median income. As construction costs continue to rise, this housing solution concept could easily become unaffordable.

(ii) Employment/labor intensive technology. Insufficient mechanisms exist to promote the development of labor intensive technologies or to facilitate greater employment opportunities and/or the more effective utilization of limited resources through self-help approaches.

c. General Resources and Services Constraints

(i) Land. Legal procedures for the public acquisition of land can frequently be lengthy. Land planning approaches until the present have been based on racial/economic divisions which are now being abandoned. Particular problems with the availability of land in urban areas are likely to develop as planning necessitates the integration of former white and black areas.

(ii) Public services and facilities. The provision of high standard public infrastructure (water supply, waste disposal, etc.) and social services (health and education) for HDSB low income housing schemes is not presently based on the long-term realities of target group affordability nor government financial capacity. While European standards for roads, utilities and community open space have been applied to higher density areas, it is unlikely that GOZ can afford to continue these standards on the scale necessary to meet growing demand. Already, the provision of schools and health clinics by the Ministries of Education and Health lags well behind the initial construction of the housing solutions by HDSB.

(iii) Human resources. The current technical capacity of the senior technical officers within HDSB is very strong. However, as new staff is brought into the Ministry, and in particular into HDSB, and as the structure of the private sector adjusts to the changes of the present government, the following limitations in human resources will likely be evidenced:

- Critical shortages in the engineering, planning, architectural and community development fields;
- Shortage of skilled craftsmen in the building trades;
- Limited capacities of the small scale African contractors.

(iv) Research and development in the shelter sector. In addition to the substantial amount of low income housing research already undertaken by HDSB, additional study is required in order to make HDSB housing schemes more affordable and socially acceptable to the project beneficiaries. Areas of particular interest include more appropriate planning and engineering standards for low income site development; mechanisms for including self-help building methods in the completion of core housing solutions; and provision for the use of small scale contractors in the construction of HDSB housing schemes.

(v) Social analysis. Social analysis and family behavior studies are normally not used in shelter architectural design and layout. There is a need to develop, in addition to the existing income and unit cost criteria used in family affordability calculations, a complementary social specification which would take into consideration household preference for different housing types and the cultural sensitivities required in dwelling unit and layout design.

d. Policy Constraints

(i) Overall development policy. The policy revision which can be anticipated will require changes in philosophies, outlooks, practices as well as changes from well-established policy positions as new laws are passed and the policy making functions of established ministries are changed or combined as new staffing takes place. Such revisions will not take place overnight and it will require significant educational and executive support programs to help those responsible for making and implementing new development policy.

(ii) Housing and urban development policy. With the adoption of the MLGH Five-Year Program for Low Cost Housing Construction, GOZ is moving toward acceptance of the idea of constructing appropriate housing solutions based on target income groups. The MLGH housing draft plan indicates that 60 percent of all units to be constructed will be of the "most affordable" ultra low cost type. While the HDSB is now well aware of the need to bring its higher density housing production more into line with the financial capacity of the target population, it is just beginning to recognize the ramifications posed by the increased movement of rural households to the main urban centers. Present GOZ housing policy will have difficulties keeping pace with this increased demand for housing. Spontaneous squatter settlements are already developing around many of the country's urban areas. In the future, income derived from formal wage employment will not be a viable prerequisite for the allocation of GOZ-produced housing solutions. The government's present emphasis on the development of rural service centers will only fractionally alleviate this pressure. All aspects of future GOZ housing policy (from affordability of project design to beneficiary selection) will have to place a much greater emphasis on serving this rapidly expanding segment of the low income population.

(iii) Standards and codes. Existing building standards and codes which are applied to the construction of low income dwelling units tend to be restrictive in nature. More recognition should be given to guiding rather than strictly controlling the development process for higher density housing schemes. The feasibility of complementing the existing building code/specification approach with more performance oriented standards and codes should be examined.

2. Principal Constraints in the Financing of Shelter

a. Institutional Constraints

(i) Current financing practices and procedures. Historically, practically all financing for low cost housing was channeled through the local government authorities. This financing came primarily from the Local Government Areas Building Fund which, in turn, was funded by loans from Treasury and from private financial institutions. During the last several years, while the sources of funding have remained much the same, the developing agency has shifted in large part to HDSB. Particularly in the case of Salisbury, the HDSB presently produces a large percentage of the higher density housing solutions. All HDSB-produced housing schemes are ultimately administered by the local municipalities.

At the level of individual credit availability, with the exception of the limited resources available to the local governments and HDSB, low income households have very little access to formal housing credit. Even middle income households have difficulty obtaining credit for housing, especially households who would qualify for housing costing less than US\$9,600 (Z\$6,000) which is the effective lower limit on building society loans, but more than US\$4,800 (Z\$3,000) which is the general limit for assistance from publicly-funded programs. Overall, less than 3 percent of the country's urban black population has access to building society construction or home purchase credit financing.

(ii) Access to credit for women. In the past, women have been discriminated against in the provision of housing as they are considered minors and cannot enter into a contract in order to get housing.

b. Financial Resource Constraints

(i) The national economy. Zimbabwe is recovering from an extended period of international sanctions on trade and from a protracted war. The country registered a serious current account deficit in 1979. Foreign exchange reserves to cover some of the deficits are already critically low and the Government of

Zimbabwe expects a serious deficit for FY 1980/81. Domestic financing of this debt will be difficult as the Treasury competes with increased domestic borrowing by the private sector. The effect of such financial constraints on housing is likely to worsen as rural development projects which are considered to be "more productive" come into national and international aid focus.

(ii) Housing finance plans. Although the GOZ has plans to make a major investment in Salisbury as part of its 1980-81 housing budget, it is not clear that adequate resources exist to cover their planned activities in housing given the magnitude of demands from all sectors on extremely limited resources.

c. Policy Constraints

(i) Past finance policies. In Zimbabwe, there have been very limited subsidies provided for in higher density housing schemes. This has been possible due to the past focus on housing for wage earners above the median income and solutions which lent themselves to the rental of rooms or bedspace within newly acquired units to single wage earners. One of the significant results of this policy has been the implicit acceptance of overcrowding within newly constructed units as an economic reality.

Present accommodation is heavily overburdened and housing in the local government areas is very overcrowded. In the past, much of this overcrowding has taken the form of legal, or more frequently illegal, lodging. Site visits during the month of August 1980 revealed that this high demand for lodging has resulted in rents of between US\$13 (Z\$8) and US\$24 (Z\$15) per month for one room or a portion of a room. Domestic workers' quarters in the former white areas are also overcrowded in spite of the fact that the number of people housed in these quarters is officially limited to those employed on the premises. Furthermore, shanty settlements are appearing on the edge of farm land surrounding Salisbury.

(ii) New policy. Affordability of housing solutions has now been accepted as a factor in the formulation of MLCOH housing policy and programming. The intention of the MLCOH to produce housing for income groups below the median is also now established. New policy also calls for affordable housing to be sold with total cost recovery on an installment rent/purchase basis which leads to freehold tenure. While such new policy directions do set a firm base for the identification of new more affordable housing solutions, required modifications to other policy considerations which would facilitate serving the great majority of the presently unserved low income population have as yet not been formulated.

3. Principal Constraints in the Demand for Shelter

a. Financial Constraints

(i) Savings accumulation and access to credit.

Formal credit mechanisms for accumulating and channeling savings from low income households for use in the financing of individual low income housing investments are lacking. Though the poor use the building societies for savings, relatively few have historically been served by the lending programs. Building society funds are presently being loaned in block grants to public sector institutions for low income housing, but the poor require a new mechanism which would provide direct access to credit for new housing and home improvement loans. The present system leaves a big gap between the informal private money lenders who provide small loans at high interest rates and the building societies which charge reasonable interest rates but where no allocation is available for anyone who cannot afford a house costing at least US\$8,000 (Z\$5,000) to US\$9,000 (Z\$6,000).

(ii) Income/employment and demand for housing.

June 1980 unit cost and fiscal employment wage figures applied to the recently formulated MLGH Five-Year Construction Plan indicate that 15 percent of the wage earners in Salisbury cannot afford an "ultra low cost" housing solution; 35 percent of the wage earners can afford a "standard" 2-3 bedroom core house; and only 15 percent can afford a "standard" 2-3 bedroom core house. Thus, if present municipal and government planning, design and costing are adhered to, a "standard" core house solution is aimed at those between the 65th and 85th percentiles on the income scale. These figures, it is emphasized, relate to those employed in the formal wage sector of the economy. Nationally, in 1978, blacks employed in the formal sector of the economy represented only 13.2 percent of the total black wage sector population. It is likely that a large percentage of urban households are not considered in the housing demand figures because they are dependent for their income on the informal sector of the economy.

b. Social and Cultural Constraints

(i) The role of women. Women heads of household have in the past been discriminated against in the provision of housing. Under the recently repealed African (Urban Areas) Accommodation and Registration Act (repealed in January 1979), only married employed men were eligible for accommodation. Should a woman be widowed or deserted, she lost her rented accommodation.

A woman is legally a minor, whatever her age, and cannot enter into a contract without her guardian's consent. Exceptions to this are women who are divorced or widowed. Under certain circumstances they are regarded as "emancipated."

(ii) Target group expectations. Presently, the means whereby the desires and expectations of low income households are taken into account by public sector housing production agencies need improvement. In addition to requiring some type of secure shelter, partial evidence seems to suggest that immigrants to urban areas need significant education and assistance in establishing a base in the urban area.

Job opportunities, better educational opportunities and health facilities and security are high priority items. Many of the recent immigrants are either presently unemployed or employed in the informal sector. The relationship between employment and housing is a fundamental issue of housing demand in that a household's economic activity generates an income, a portion of which in turn, is available to be spent on housing. Present government policy ignores the potential amount of household income generated by the informal sector by strictly tying urban housing allocation to formal individual wage employment.

B. RECOMMENDATIONS

1. The Broad Development Strategy Recommended for the Housing Sector

A wide variety of changes within almost every aspect of the housing sector will be required to prepare both the public and private sectors (institutionally and financially) to produce housing which meets the expected future urban demand in Zimbabwe. It is important to recognize that these changes will be taking place during a period of significant change in almost every GOZ sector and ministry. Resources will be extremely limited. Clearly, in dealing with the housing sector, a great deal of flexibility will be required as well as extensive periods of testing and adjustment. For this reason, it is suggested that development in the housing sector be approached over the short-term through the formulation and implementation of a series of interrelated projects to meet the emerging demands. This will allow the central government institutions to develop their capacity to formulate policies, plan, design and implement affordable solutions for the income groups below the median in the process of implementing required immediate action projects.

Such action projects should include a comprehensive manpower training package to assist the Government of Zimbabwe in developing the technological, institutional and financial capacity to provide low cost shelter and related services for the urban poor. A series of specific projects should be developed and implemented over the next five-year period directed at achieving the following purposes:

- Increasing the production of low cost shelter in Salisbury and other cities of Zimbabwe.

- Initiating the process of strengthening the capacity of national and local urban authorities to administer large low cost housing programs, some with a self-help component.
- Developing a range of design and policy improvements for consideration during the planning of the projects. This will include improvements in house designs; more economical land use and service standards; improved contracting techniques to include smaller builders; more economical building design for community facilities; supporting small scale enterprises; and improving institutional and financial mechanisms.

2. Recommendations for Project Development

a. Higher Density Housing Scheme Development. The GOZ, as part of its Five-Year Construction Plan, should begin to develop higher density housing schemes for Salisbury, or adapt those projects already in the planning stage, which meet the basic strategy and objectives mentioned in the previous section. The proposed new directions would more effectively meet the demand from low income residents below the median income for affordable housing solutions. Such a program, once initiated and tested in Salisbury, could later be expanded to cover other important urban centers throughout Zimbabwe.

The proposed projects should be designed to meet a severe housing shortfall and to improve the shelter delivery process by building on the existing strengths of the Housing Development Services Branch and local authorities, enhancing their capacity to plan, design and implement a full range of shelter projects for low income persons.

The HDSB, already established and functioning, is expanding its role in all aspects of shelter design, contract tendering and administration. Under the recommended new directions, it would expand its role to advise and direct local authorities in low cost shelter development.

Comprehensive project planning for the national shelter sector would be linked to local authority interests, securing the marriage of scarce talents and resources to efficiently meet beneficiary needs.

The HDSB could act as the shelter project developer with the local authorities or as the agency responsible for follow-on programs of aided self-help requiring building material loan programs and technical assistance.

In order to ensure that future housing solutions reach down to well below the median income, a demonstration project in aided self-help housing should be undertaken by the HDSB and the Salisbury Municipality to test the suitability of the aided self-help approach in reaching low income urban residents. As part of initial efforts, a program aimed at providing home ownership opportunities that are socially relevant and economically feasible should be implemented. Long- and short-term manpower training will, of course, be required to develop and implement this subproject.

b. Institutional Development. The major institutional development purposes of the proposed new directions for higher density housing scheme development would be achieved by:

(i) Expansion of the advisory services and planning capacity of the Housing Services Development Branch to assist local government planning capacity in shelter schemes.

(ii) Improvement in the delivery of shelter assistance to local urban authorities.

(iii) Establishment of an aided self-help program in the Housing Services Development Branch; the completion of short-term training for technical support workers in community development administration and estate management as part of the aided self-help program.

(iv) Establishment of a training program for architects, planners, engineers and quantity surveyors to augment the staff of the HDSB.

(v) Establishment of project evaluation capability in the HDSB and/or the Salisbury City Council.

(vi) Initiation and completion of a household savings mobilization and loan study.

(vii) Short-term training of project evaluators and project implementors from secondary cities.

c. Manpower Training. As mentioned previously, Zimbabwe is at a critical point of change in many political, social and administrative dimensions. There is a need to train black Zimbabwe professionals. There is some need to shape and reshape policies, programs and implementing agencies. At the same time, there is the inevitable dilemma of choosing between achieving high performance now and carrying through a training role.

Critical manpower shortages exist in the civil engineering, physical planning, quantity surveyors, architectural and community development fields. Long- and short-term training should be provided to meet manpower shortages in those fields.

In addition, training and orientation should be provided for local authority staff in aided self-help shelter program systems and techniques and for evaluation staff in all aspects of shelter monitoring and evaluation.

Specifically, training efforts should be directed at developing the following human resource capabilities:

- Establishing an aided self-help program.
- Providing institutional support to the GOZ in developing both housing programs and institutions to meet low income shelter requirements.
- Reviewing and recommending improvements in existing shelter design and infrastructure standards.
- Examining alternative financial mechanisms for lower income households such as cross-subsidies, graduated payment mortgages and housing cooperative schemes to help expand the pool of lower income households served by cost-recoverable public housing schemes.
- Advising on the development of assistance programs to small businesses.
- Ensuring the implementation of studies to establish the social and economic basis of households to benefit from the low cost housing schemes.
- Assisting with organizational development and construction management.
- Advising on communication and community participation systems.

CHAPTER II

THE OVERALL CONTEXT FOR ACTION

A. COUNTRY SITUATION

1. Geographic and Climatic Conditions¹

Zimbabwe, a landlocked country located within the tropics in southeastern Africa, has a land area of approximately 151,000 square miles (roughly the size of the state of Montana). The geography of the country is dominated by a granite plateau which rises in central Zimbabwe to form an elevated savannah region, a highveld, from which the land slopes to three river basins: the Zambezi on the northern border; the Limpopo in the south; and the Sabi in the southeast. The highveld is between 50 and 100 miles wide and extends for more than 300 miles from the capital of Salisbury southwestward beyond Bulawayo, the second largest city. Through most of its length the highveld is between 4,000 and 5,000 feet above sea level.

In northcentral Zimbabwe, the broad expanse of the highveld breaks into several arms, one of which extends southwestward from Salisbury to the mountains around Umtali along the eastern border. This eastern mountain complex is the highest area in the country -- most peaks are between 6,000 and 8,000 feet high.

On its northwestern and southeastern slopes, the highveld merges imperceptibly into the medium altitude wooded grasslands (middleveld), generally defined as the area between 3,000 and 4,000 feet in elevation. On the southeastern flank of the highveld, the middleveld is no more than 75 miles wide in most areas, narrowing to less than 50 miles wide northeast of Fort Victoria. On the opposite slope in western and northwestern Zimbabwe, it covers a much larger area, having a breadth of 150 miles or more in the Gwaai and Shangani river valleys northeast of Bulawayo.

In the southwest, the lowveld, which is generally considered to include the land below 3,000 feet, extends from the nominal edge of the middleveld to the southern and southeastern borders, covering nearly one-fifth of the territory. In the northwest and north, the lowveld is divided into three major sections partially

¹ Most of the material in this section is drawn from Chapter 3 ("Geography and Population") of the Area Handbook for Southern Rhodesia, Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 1975.

separated by escarpment and local ranges of hills. These sections slope directly to the Zambezi River or to the 175-mile shoreline of Lake Kariba.

Zimbabwe's climate includes a warm, rainy season -- the Southern Hemisphere summer -- from November to March; a transitional period of diminishing rainfall extending into May; a cool and dry winter season from May to August; and a season that becomes increasingly warm and dry from August through October until both the progressive increase in daily temperature and annual drought are interrupted in November by the first rains of the succeeding wet season.

Throughout most of the highveld, with its many urban centers near the rail line between Salisbury and Bulawayo, the daily maximum temperatures are generally between 80°F and 90°F for most of the year. Daytime warmth, however, dissipates quickly after sunset, and nights are cool. Nighttime frosts occur in July, the coolest month. Annual rainfall in the upper levels of the veld ranges between 24 and 32 inches and may be higher in a small area near Salisbury. Rainfall declines to less than 16 inches per year in most lowveld areas. Daytime temperatures in the lowveld in both the Limpopo and Zambezi river basins may exceed 100°F.

The level of rainfall is critically important to the people and the economy. No area has a real excess of precipitation. In half the territory the effective rainfall is inadequate for dependable crop production. Rainfall may vary greatly from one area to another during a single season, and averages for the entire country may change greatly from year to year.

Although not extreme, slopes in most areas of the country are steep enough so that much of the rain flows quickly to stream channels, rather than soaking slowly into the subsoil or into subsurface aquifers. Some rainstorms are quite heavy, but much of their potential value is lost as the water rushes off croplands or grasslands into the rivers, possibly carrying topsoil away as well.

Severe drought struck Zimbabwe in 1967 and 1968. Reduced rainfall also created problems during the mid-1970's.

2. Major Aspects of the Economy

In 1979, Gross Domestic Product (GDP) was US\$4.2 billion (Z\$2.6 billion) or US\$565 (Z\$360) per capita. GDP had grown at a rate of about 2 percent per year in real terms since 1970, but it had in fact declined from a high point in 1974 to a level which was only 86 percent of the 1974 GDP.

Although the agriculture sector is by far the largest employer, providing 33 percent of the 990,000 formal sector jobs in 1979 and employment for an estimated additional 2 million

people in subsistence agriculture, it accounted for only 12 percent of GDP. Manufacturing was the largest contributor, accounting for 25 percent of GDP at factor cost. Distribution (including hotels and restaurants) accounted for 12 percent, public administration 11 percent, transport and communications 9 percent and mining 8 percent. The concentration of GDP statistics on the largely formal sector activities reflects both the dualistic nature of the Zimbabwean economy and the difficulties of enumerating informal sector activities.

Traditionally, the most important earners of foreign exchange have been commercial agriculture, mining and tourism. Although some exports have been limited by the war and sanctions, the country has maintained a balance of trade surplus which amounted to US\$150.4 million (Z\$94 million) in 1979. However, services, investment income and transfer items have traditionally shown large deficits which have exceeded the trade surplus for the last nine years. The net current account deficit in 1979 was US\$176 million (Z\$110 million) in 1979. These deficits have been maintained by positive capital account balances.

The general balance of payments trends of the last few years is expected to continue at least through 1981. While exports will rise with the end of the war and sanctions, imports will also rise to meet backlogged consumer needs and the needs of increased industrial investment. Balance of trade surpluses of US\$150.4 and US\$116.8 million (Z\$94 and \$73 million) are expected in 1980 and 1981 respectively. The expected net deficit in services, investment income and net transfers is expected to result in a net deficit in current account of US\$169.6 million (Z\$106 million) in 1980 and US\$259.2 million (Z\$162 million) in 1981. Although a considerable capital account surplus is projected for both of these years, the surplus (including borrowing from currently known sources) is expected to be much smaller than the current account deficit. Net deficits of current and capital transactions are expected of US\$108.8 million (Z\$68 million) in 1980 and US\$225.6 million (Z\$141 million) in 1981. Foreign exchange reserves to cover these deficits are already critically low, amounting to only three months coverage of expected 1980 imports.

The Government of Zimbabwe (GOZ) budget is also in serious deficit. The budget deficit grew to an estimated US\$702.4 million (Z\$439 million) in 1979-1980, largely due to defense expenditures. The anticipated deficit for 1980-1981 is US\$1,040 million (Z\$650 million). Government expenditures will be high due to increased capital expenditure and the need to support three armies. Domestic financing of this debt will be increasingly difficult. The GOZ will have to compete with other domestic borrowers in the private sector.

Fortunately, the external debt position of Zimbabwe will permit additional borrowing to meet immediate foreign exchange needs and a part of the government budget deficit. External debt

is a very small part of central government debt. The estimated debt servicing ratio for 1981-1983 is only about 10 percent. Because most of the debt is of a very short-term nature, the debt servicing ratio would fall rapidly after 1982.

3. Demographic Trends

a. Population. Zimbabwe has an estimated annual population growth rate of approximately 3.4 percent, which is among the highest in the world. In 10 years, the population has grown from just over 5 million to the estimated 1979 figure of almost 7.2 million. This population is composed of four racial groups, each with its own rate of natural increase and its own distinct settlement patterns. Blacks comprise over 95 percent of the total population and their rate of natural increase presently stands at 3.8 percent.² The growth of the white population, which makes up only 4.2 percent of the population, has fluctuated greatly over the years due to an unpredictable pattern of migration. The two smallest groups -- Colored and Asians -- make up less than 0.5 percent of total population and, as such, are usually grouped along with the Europeans and collectively termed the white population. Table 1 summarizes the growth of the Zimbabwe population by broad ethnic groups from the turn of the century until the end of 1979.

b. Urban population. Since the colonial period of the 1890's, the white population has been resident largely in the urban areas and has been responsible for laying the groundwork for urban development in present day Zimbabwe. Based on the population figures for the country's 14 main centers, 83 percent of the total white population is urban. In absolute terms, there are presently over 240,000 white residents in the urban areas.

In marked contrast to the spatial distribution of the whites, the black population is largely resident in the rural areas and the movement to the urban areas has, until recent years, been a relatively slow process. Before colonization, there were no towns to speak of in what is now Zimbabwe and the only form of settlement was villages comprising an agglomeration of never more than a few hundred huts. Tribal life was based on self-sufficiency and there was little need for urban centers as they are known today. This pattern was altered drastically with the advent of colonialism.

² Given USAID's mandate to serve the urban poor and the fact that blacks comprise an overwhelming majority of the total urban poor population, the present Shelter Sector Assessment places special emphasis on Zimbabwe's black population.

TABLE 1
Zimbabwe Population
1901-1979

<u>YEAR</u>	<u>BLACKS</u>	<u>BLACK GROWTH RATE (%)</u>	<u>WHITES</u>	<u>WHITE GROWTH RATE (%)</u>	<u>TOTAL</u>	<u>TOTAL GROWTH RATES</u>
1901	700,000	---	12,600	---	712,600	
1911	880,000	2.3	26,600	7.8	906,600	2.4
1921	1,110,000	2.3	37,100	3.4	1,147,100	2.4
1931	1,410,000	2.4	54,200	3.9	1,464,200	2.5
1941	1,930,000	3.2	75,900	3.4	2,005,900	3.2
1951	2,680,000	3.3	148,400	6.9	2,828,400	3.5
1961	3,730,000	3.4	238,500	4.9	2,968,500	3.4
1969	4,880,000	3.4	254,300	6.8	5,134,300	3.3
1975	5,980,000	3.4	307,400	3.3	6,287,400	3.4
1978	6,640,000	3.6	294,100	-1.5	6,934,100	3.3
1979	N.A.	N.A.	N.A.	N.A.	7,130,000	2.8
% of Total Population	95.76		4.24		100.0	

SOURCE: Supplements to the Monthly Digest of Statistics, C.S.O.

As a result of the establishment of urban settlements and introduction of wage employment during the colonial period, blacks were gradually drawn into the urban areas. Initially, they migrated to the towns for short periods -- sufficient time only to acquire what cash goods they needed before returning to their tribal areas. However, the relatively strict enforcement of laws such as the now repealed African (Urban Areas) Accommodation and Registration Act retarded the movement of dependents of black urban workers to urban areas and this, combined with the general shortage of low income housing, tended to slow down the rate of urbanization.

The last decade has seen the greatest growth in the urban population. Between 1969 and 1974, a period when considerable economic growth occurred, wage employment increased substantially which, in turn, resulted in a rapid growth in the urban population. Since 1974, economic growth has declined, but the urban population has continued to expand rapidly. This fact is largely due to the recent security problems in the rural areas and to the fact that the authorities have made special provision for certain squatter settlements.

Table 2 shows, as of 1978, that while only 16.8 percent of the total black population lives in the urban areas, this sector accounts for over 80 percent of the total urban population and its share of the urban population is continually increasing.

The growth rate for the black urban population between 1969 and 1978 was 5.7 percent, which compares with the natural growth rate of 3.6 percent. It should be noted that the population figures given in Table 2 are the official figures prepared by the Central Statistical Office (CSO). However, the latest supplement to the "Monthly Statistical Digest of Statistics" acknowledges that the urban population figures do not include refugees from the rural areas. It is likely that the true urban population, as well as the urban population growth rates with respect to the black population, are somewhat higher than those indicated in the table. The figures indicate that the urban black population growth rates between 1969 and 1974 of 7.1 percent fell to 4.0 percent between 1974 and 1978. It is likely, however, that the growth rate between 1974 and 1978 at least equalled that between 1969 and 1974.³ Table 3 projects the total 1978 urban black population for the period 1980-1990. The three series of yearly projections are based on the percentages of 4.6, 7.0 and 11.5 which are discussed and used in the Ministry of Finance document, "Urban Development in the Main Centers," 1979.

³ Finance for Low Income Housing, The Whitsun Foundation, Salisbury, Zimbabwe, 1979, p. 10.

TABLE 2

Zimbabwe Urban Population
1961-1979

<u>YEAR</u>	<u>URBAN BLACK POP.</u>	<u>% OF TOTAL BLACK POP.</u>	<u>BLACKS AS % URBAN POP.</u>	<u>URBAN WHITE POP.</u>	<u>% OF TOTAL WHITE POP.</u>	<u>WHITES AS % URBAN POP.</u>	<u>URBAN POP.</u>	<u>% OF TOTAL POP.</u>
1961-62	522,000	14.0	73.6	187,000	77.9	26.4	709,000	17.3
1969	676,000	13.9	76.8	204,000	81.6	23.2	880,000	17.2
1970	750,000	14.9	77.7	215,000	82.7	22.3	965,000	18.2
1971	773,000	14.8	77.3	227,000	81.1	22.7	1,000,000	18.2
1972	817,000	15.1	77.5	237,000	81.7	22.5	1,054,000	18.3
1973	877,000	15.7	78.2	244,000	81.3	21.8	1,121,000	19.0
1974	951,000	16.5	79.3	248,000	82.7	20.7	1,199,000	19.7
1975	983,000	16.4	79.5	253,000	81.6	20.5	1,236,000	19.7
1976	991,000	16.0	79.9	250,000	80.6	20.1	1,241,000	19.1
1977	1,074,000	16.8	81.6	242,000	80.7	18.4	1,316,000	19.6
1978	1,113,000	16.8	82.1	242,000	83.4	17.9	1,355,000	19.6
1979	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	1,385,000	19.5
Growth Rate 1969-78	5.7%			1.9%			4.9%	

SOURCE: Supplements to the Monthly Digest of Statistics, C.S.O.

TABLE 3
Population and Migration Projections for
Urban Blacks*
1980-1990

<u>YEAR</u>	<u>PROJECTED GROWTH RATES**</u>		
	<u>Low</u>	<u>Medium</u> (thousands)	<u>High</u>
1979	1,164	1,191	1,241
1980	1,218	1,274	1,384
1981	1,274	1,363	1,543
1982	1,332	1,459	1,720
1983	1,394	1,561	1,918
1984	1,458	1,670	2,139
1985	1,525	1,787	2,385
1986	1,595	1,912	2,659
1987	1,668	2,046	2,965
1988	1,745	2,189	3,306
1989	1,825	2,343	3,686
1990	1,909	2,507	4,110
TOTAL POPULATION GROWTH (1980-1990)	691	1,233	2,726

* Estimates based on June 30, 1978 black population of 1,113,000.

** Based on low, medium and high population growth projections of 4.6, 7.0 and 11.5 percent.

c. Urban population distribution. Similar to the development pattern of many countries, and in particular with Third World countries, the major portion of Zimbabwe's urban population is concentrated in two main centers, Salisbury and Bulawayo. Comparative figures for the population of the country's 14 major urban centers, as prepared by the CSO, are presented in Table 4.

Considering only the major urban centers, 45 percent of the total urban population is concentrated in Salisbury, while 71 percent is in Salisbury and Bulawayo together. These figures indicate that between 1969 and 1979 the degree of primacy has increased marginally in the case of Salisbury and, in the case of Salisbury and Bulawayo together it has actually declined fractionally. It is likely, however, that the degree of primacy has increased more than is indicated by these figures because, as stated above, they do not include the war refugees. Recent estimates by the Department of Physical Planning indicate that the actual population of the local government areas in the seven largest centers exceeds the official population by as much as 35 percent. With the last population census having been taken in 1969 and with the considerable urban structural changes that have taken place in the last four years, it is difficult to make assessment of the present population of the centers.⁴

4. Income and Expenditure Patterns

A detailed analysis of household income for the black urban population would give a good indication of the effective demand for low income housing. Unfortunately, the best information relating to income presently available is a June 1977 CSO black urban wage distribution. The survey, undertaken by the CSO, presents the CSO wage distribution in terms of those individuals paid in cash, as well as those who receive either free housing or free rations and meals, or both. An amended total for the cash wage distribution has been calculated on the basis of US\$16 (Z\$10) each for free rations and free housing. In the case of approximately 62,000 individuals, or half the total number of domestic employees, no cash value is given for free housing as they are resident on their employer's property and would forfeit the facility if they moved to their own dwelling unit. Table 5

⁴ Ibid, p. 13.

TABLE 4
Population of 14 Main Centers

TOWN	1969 (CENSUS)				1978 (AS OF 30th JUNE)				1979 (AS OF 30th JUNE)	
	BLACKS	WHITES	TOTAL	% ACCUMULA- TIVE TOTAL	BLACKS	WHITES	TOTAL	% ACCUMULA- TIVE TOTAL	TOTAL	% ACCUMULA- TIVE TOTAL
Salisbury	280,000	106,000	386,000	43.9	480,000	130,000	610,000	45.0	627,000	45.3
Belweye	137,000	58,000	245,000	71.7	290,000	68,000	358,000	71.4	363,000	71.5
Coola	37,000	9,000	46,000	76.9	59,000	10,000	69,000	76.5	70,000	76.6
Bonall	36,000	10,000	46,000	82.2	52,000	10,000	62,000	81.4	63,000	81.1
Que Que	29,000	4,000	33,000	95.9	48,000	5,000	53,000	85.0	51,000	84.8
Catoona	22,000	3,000	25,000	88.8	30,000	3,000	33,000	87.5	33,000	87.2
Wentle	18,000	2,000	20,000	91.8	29,000	3,000	32,000	89.8	33,000	89.6
Stoala	12,000	2,000	14,000	92.6	23,000	2,000	25,000	91.7	27,000	91.5
Fort Victoria	8,000	3,000	11,000	93.5	19,000	3,000	22,000	93.3	24,000	93.2
Maraudellas	9,900	2,000	11,900	95.1	20,000	2,000	22,000	94.9	23,000	94.9
Shobani	14,000	2,000	16,000	96.9	18,000	2,000	20,000	96.4	20,000	96.3
Redcliff	7,000	1,000	8,000	97.8	16,000	2,000	18,000	97.7	19,000	97.7
Binders	9,000	1,000	10,000	99.0	16,000	1,000	17,000	99.0	17,000	98.9
Hartley	8,000	1,000	9,000	100.0	13,000	1,000	14,000	100.0	15,000	100.0

SOURCE: Supplements to the Monthly Digest of Statistics, CSO.

TABLE 5

Wage Distribution: Black Urban Employees
June 1980

TOTAL ZIMBABWE URBAN BLACK EMPLOYEES			SALISBURY URBAN BLACK EMPLOYEES		
MONTHLY WAGE INCOME	% OF TOTAL WAGE EARNERS	ACCUMULATIVE % OF TOTAL WAGE EARNERS	MONTHLY WAGE INCOME	% OF TOTAL WAGE EARNERS	ACCUMULATIVE % OF TOTAL WAGE EARNERS
(Z\$)	(%)	(%)	(Z\$)	(%)	(%)
Less than 20	4.4	4.4	Less than 20	9.8	9.8
21 - 30	3.4	7.8	21 - 30	4.8	14.6
31 - 40	6.3	14.1	31 - 40	6.6	21.2
41 - 50	12.0	26.1	41 - 50	7.1	28.3
51 - 70	24.6	51.7	51 - 70	13.1	41.4
71 - 90	20.4	71.1	71 - 90	15.4	57.8
91 - 110	10.1	81.2	91 - 110	14.6	72.4
111 - 130	6.8	88.0	111 - 130	7.7	80.1
131 - 150	4.2	92.2	131 - 150	6.0	86.1
151 - 200	4.3	96.5	151 - 200	7.2	93.3
201 - 250	1.4	97.9	201 - 250	2.8	96.1
251 - 300	0.7	98.6	251 - 300	1.4	97.5
Greater than 300	1.4	100.0	Greater than 300	2.5	100.0

SOURCE: PADCO Update of CSO, June 1977 Wage Distribution.

shows an updated version of this 1979 black urban wage distribution as compiled by the CSO.⁵

It should be mentioned that although the CSO wage distribution has been taken as a proxy for household income in this analysis, it should be treated with a degree of caution for the following reasons:

- (1) The distribution does not take into consideration a Zimbabwe Government Gazette Extraordinary dated July 30, 1980 which establishes minimum wages for many urban employees including domestics and individuals employed in the civil engineering and building construction industries.
- (2) It does not reflect income received by taking in lodgers, nor does it account for incomes being supplemented by other members of the family, such as a wife.⁶
- (3) The figures take no account of unemployed persons, workseekers and those in informal employment, since no reliable data is available in this regard.⁷
- (4) The monetary value of US\$16 (Z\$10) for free housing and rations and meals is arbitrary and does not provide a true indication of their value.

However, accepting these limitations, the figures do provide a rough profile of household income, and thus can serve as indicator of effective demand for different low income housing solutions.

⁵ The 1977 CSO Wage Distribution has been updated to June 1980 based on a 10 percent yearly inflationary increase and a 20 percent total real growth in wages over the 3-year period.

⁶ In March 1983, black female non-agricultural workers constituted 9 percent of the black work force.

⁷ According to 1969 Census in the 12 main urban centers, workseekers (those persons actively seeking work in the week prior to the census) equalled almost 7 percent of those in formal employment. With regard to unemployment, no official data is available, but a 1978 study undertaken by the University of Zimbabwe concluded that 34 percent of the adult male population was unemployed.

5. Employment Prospects

One of the most crucial problems facing Zimbabwe at the moment is mass unemployment. While the black population is presently increasing at 3.6 percent per annum, there has been no employment growth since 1975. The latest CSO figures for 1979 show a slight decrease of 1,000 jobs from the 1970 figures. A fairly recent (1978) University of Zimbabwe study finds that 34 percent of the adult male population of Salisbury is unemployed; today that figure is probably nearer 50 percent. It is estimated that to eliminate this backlog and satisfy the annual demand for the number of blacks entering the labor force, 60,000 to 70,000 new jobs must be created each year.⁸

Table 8 shows the historical development of African employment by industrial sector from 1964 to 1979. Agriculture and forestry, by far the largest black employers, account for almost 35 percent of the total black labor force. The next largest employer, manufacturing and private domestic services, account for over 13 percent each of total black employment. It is interesting to note that employment in the construction sector, historically a receptacle for recent urban in-migration in the developing countries, has lost almost 24,000 jobs since its highwater mark in 1974 and presently accounts for only 4 percent of total African employment.

The relationship between population growth and employment has changed greatly in the country's seven principal urban centers since 1974. In the period of vigorous economic and employment growth ending in 1974, there was a close correlation between urban population growth and growth in urban employment. In the period 1975-77, however, a marked difference is seen in the two growth rates -- the mean urban population growth rate declining from 6.9 to 4.0 percent and the growth rate of employment declining from 5.3 to -2.5 percent, a drop in the employment growth rate of 8.8 percent.

The increasing rate of unemployment has resulted in a marked increase in informal sector employment. In an attempt to bridge the gap between employment opportunities and the demand for jobs, thousands of urban dwellers in the larger towns are turning to a wide variety of informal economic activities.

⁸ Some Aspects of the Low Cost Housing Problem in Zimbabwe, G.J. Merrington, 1980. A paper presented in May 1980 at a Building Industry Action Committee Conference.

TABLE 6
Employees by Industrial Sectors

	AGRI- CULTURE AND FORESTRY	MINING AND QUARRY- ING	MANUFAC- TURING	ELEC- TRICITY AND WATER	CON- STRUC- TION	FINANCE, INSURANCE AND REAL ESTATE	RESTAURANTS AND HOTELS EMPLOYEES	TRANSPORT AND COMMUNICATIONS	PUBLIC ADMINIS- TRATION	EDUCATION	WEALTH	PRIVATE DOMESTIC OTHER	TOTAL (thousand)	
Annual Average:														
1964	299.5	44.4	76.7	4.9	26.9	7.6	61.5	33.3	26.7	27.8	8.8	93.7	24.5	736.0
1965	295.6	47.1	80.7	4.9	27.2	7.9	60.8	35.3	29.9	29.1	9.1	94.7	25.2	748.0
1966	278.4	48.5	80.5	5.1	27.8	7.9	56.1	35.8	31.8	30.2	9.4	95.7	27.8	735.0
1967	277.6	50.5	86.3	5.2	28.5	8.1	58.0	36.4	33.9	29.3	9.8	97.8	29.2	751.0
1968	288.6	51.7	95.8	5.5	34.2	8.2	61.8	36.2	35.5	30.2	10.2	102.0	30.1	790.0
1969	307.5	54.2	104.2	5.3	39.6	8.9	65.4	35.4	37.6	30.9	10.2	105.4	20.9	835.0
1970	297.8	57.2	114.7	5.6	42.4	9.0	65.6	36.5	39.0	31.0	10.7	109.3	34.5	853.0
1971	310.9	58.0	121.6	5.8	46.8	9.4	67.5	38.9	39.6	31.0	11.4	114.6	34.1	891.0
1972	342.3	58.4	130.7	6.1	49.5	10.4	72.1	41.0	40.1	31.9	12.1	119.4	38.9	953.0
1973	356.6	58.1	139.4	6.6	56.8	11.1	76.7	42.3	41.4	33.3	12.5	122.6	40.1	997.0
1974	365.6	62.0	151.3	6.9	64.3	11.6	76.2	43.8	43.4	34.7	13.0	124.4	42.7	1,040.0
1975	363.8	62.6	156.0	6.9	60.8	12.1	77.3	45.3	48.9	36.0	13.5	126.3	42.9	1,052.0
1976	356.1	63.8	153.6	6.7	51.6	12.1	74.7	45.7	53.8	36.9	13.5	126.1	42.1	1,037.0
1977	348.2	61.6	145.1	6.6	46.5	12.2	72.5	45.5	60.6	36.6	14.5	123.0	42.3	1,015.0
1978	341.4	58.1	139.3	6.5	40.9	12.0	69.1	44.0	68.3	34.9	14.7	119.4	41.1	990.0
1979	335.2	59.5	144.7	6.6	40.6	12.1	67.6	43.4	73.7	33.8	14.8	114.3	42.3	989.0
At end of:														
1977	March	347.3	63.6	146.5	6.5	48.4	12.2	73.2	46.2	58.2	14.3	124.5	42.5	1,021.0
	June	363.5	63.4	147.2	6.8	48.0	12.2	72.7	45.7	59.4	14.4	123.5	42.4	1,036.0
	Sept.	332.4	61.0	147.0	6.5	45.3	12.1	72.8	45.3	60.6	14.5	122.4	42.2	998.0
	Dec.	349.6	58.3	139.6	6.5	44.2	12.1	71.2	45.0	63.9	14.7	121.6	42.1	1,005.0
1978	March	341.8	57.6	137.0	6.6	41.4	12.2	70.2	44.4	66.0	14.6	121.0	40.7	990.0
	June	368.1	57.9	140.4	6.4	40.4	12.2	69.5	44.1	67.3	14.7	120.8	41.3	1,019.0
	Sept.	321.9	58.2	142.2	6.5	40.8	11.9	68.7	43.7	69.4	14.7	119.2	41.0	972.0
	Dec.	323.9	58.7	137.6	6.5	40.9	11.9	63.0	43.7	70.4	14.7	116.9	41.4	979.0
1979	March	329.9	57.6	138.6	6.6	41.9	12.1	67.1	43.4	72.5	14.7	115.8	41.8	976.0
	June	354.5	59.3	144.7	6.6	41.5	12.1	67.8	43.3	73.7	14.6	114.6	42.4	1,009.0
	Sept.	319.1	60.5	148.5	6.6	40.0	12.1	68.7	43.3	74.3	14.9	113.5	42.5	978.0
	Dec.	337.3	60.6	147.1	6.6	39.0	12.1	66.7	43.6	74.3	14.8	113.3	42.4	991.0

SOURCE: Central Statistical Office.

6. Internal Migration Patterns

The migration of black Africans from the Tribal Trust Lands to jobs in the urban areas had become an important factor over half a century ago, with the numbers involved increasing rapidly after 1945. Many farm families on the lands assigned to Africans were unable to make a living. In some cases, members of the family migrated to the towns, the white commercial farms or the mines to work for enough cash to purchase tools or other necessities.

Presently in many rural African areas, nearly half the male population is away from their homes. In certain regions, 80 percent of the 20 to 35 year old men are absent, working and living at distant job sites. Some remain away for one or two week work seasons, others may work five years or more.

The little information available on the origin of migration within Zimbabwe comes from a 1979 report of the Ministry of Finance on urban development in the main urban centers.⁹ The report tends to show that Salisbury draws its migrant population from all over the country, though primarily from Mashonaland, Manicaland and the Midlands, whereas Bulawayo is the destination of migrants from Matabeleland. According to Internal Affairs' Five-Year Plan, Port Victoria is in the middle of a region of great "land pressure," yet its rate of urbanization does not really reflect this point. Perhaps this is due to the fact that once the decision is made to move, there is easy access to Salisbury or other centers by long distance bus or train. Fort Victoria is probably just the first step on the way to the bigger centers. This seems to indicate that the source areas do not appear to have much effect on the final destination of migration.

The possible destination of the migrants within a center is illustrated by the former squatter settlement at Derbyshire outside the municipal boundary of Salisbury. Derbyshire represented the case of squatters settling on the periphery of a city where they were less "visible" to the authorities and controls were apparently not as stringently enforced. However, not all migrants settle on the periphery of the towns and cities. The estimated "actual" municipal population figures (in comparison to the official statistics) suggest that a large number of migrants settle in existing housing areas, probably as lodgers. As of August 1980, it remains to be seen, given the

⁹ Urban Development in the Main Centers, A Report on the Population Influx Problem, published as an annex to "Proposals for a Five-year Programme of Development in the Public Sector," prepared by the Ministry of Finance, Salisbury, Zimbabwe, January 1979.

present political climate, whether the anticipated extreme urbanization pressure on Salisbury and the other main centers will cause a saturation of the lodger market and thus precipitate a proliferation of new squatter areas.

7. Sociological Aspects of Urbanization

According to G.J. Merrington in his paper, "Towards Viable Urban Communities -- The Zimbabwean Perspective," several socioeconomic studies of the Local Government Areas (LGA) have been made in recent years. He summarizes the relevant findings in the following way:

a. Social structure. LGA social structure is now one of progressive urbanization, secularization and modernization with most people in a transitional state between tribal kinship reliance on the one hand and a modern individualistic network involving friends, neighbors and co-workers on the other hand.

b. Ties with tribal areas. The tribal ties of urban residents are declining in favor of the new urban social structure, particularly with respect to second and third generation urban residents. Rural ties in the form of visits, remittances and investments are substantially reduced with rising urban security.

c. Socioeconomic and tenure status. Increasing urban security provided by socioeconomic and tenure status is related to higher urban commitment and more active involvement in urban life. Socioeconomic status tends to take precedence over tenure status and family stabilization in the township and is essentially a question of income. Lagging residential status can invariably be related to a lack of financial resources.

d. "Enlarged family". Due to the demand for urban accommodation, the grouping of individuals along traditional kin ties is breaking down. Whatever housing is built becomes saturated with whoever can persuade the tenant that he has a claim to be accommodated. In the urban areas, related and unrelated people band together as best they can to make a living and survive in a new environment.

8. Education

Through the 1970's, the policy of government with respect to education was for two separate systems. Both were administered by different divisions of the Ministry of Education, but development had not been parallel. One system was designated officially for white students, although Asians and Colored children were statistically included despite the fact that they did not usually use the same facilities. The other system was developed exclusively for black students.

As a result of this policy, only 20 percent of all African children were completing primary school and not even 0.05 percent were completing secondary school. In contrast, over 33 percent of all white children in the early 1970's completed a secondary education. Literacy among whites, Asians and Coloreds is nearly 100 percent; estimates of literacy for the African population indicated that about 30 percent were functionally literate. Although about half of the African children of school age were officially listed as attending classes, more than 90 percent were in primary school. Most children left before finishing the full primary school cycle to become farm laborers or domestics.

Certain inequalities in educational opportunities between African and white students were long standing. In the early 1970's, the per capita expenditure for whites exceeded by almost 15 times that for Africans. Since 1930, education has been compulsory for all white children until they reach 15 years of age. The present government has taken the initial steps to rectify these inequities and place all races on an equal basis for obtaining at least a primary school education.

One longstanding multi-racial educational institution, the University of Zimbabwe, was created by royal charter in 1955. The University has five faculties: arts, education, medicine, science and social studies. All races are eligible for admission to the university based on successful completion of examinations in approved subject areas.

9. Health and Nutrition

Overall supervision of medical services in Zimbabwe is the responsibility of the Ministry of Health. The Ministry handles the administration and maintenance of medical care facilities and the training, registration and licensing of medical and paramedical personnel.

Medical care is adequate only in urban areas. Salisbury and Bulawayo have large well-staffed and well-equipped hospitals, and there are good general hospitals in the other large urban areas. In all, there are about 225 hospitals in Zimbabwe with approximately 17,000 beds or a ratio of four beds to every 1,000 people. There is a distinct shortage of doctors, however, in the rural areas. A rate of one doctor to every 5,000 patients was estimated in 1967, but in some rural areas the ratio was probably as high as one to 100,000 or more.

Africans, both urban and rural, are especially vulnerable to communicable disease. The main sources of data on sickness and mortality are government hospitals, where reporting is reliable but far from complete. Among Africans, the main causes of death were pneumonia (from overexposure); measles; ill-defined infant diseases; avitaminosis (caused by a lack of vitamins) and other states of dietary deficiency; gastroenteritis and colitis; and

tuberculosis. Of those deaths recorded, about 35 percent were among infants.

The African diet lacks variety, is poorly balanced and deficient in protein, calcium and vitamins A, B and C. Cereals and carbohydrates constitute about 15 percent of the caloric intake of most blacks. Malnutrition has been cited as the basic and most widespread problem among blacks because it reduces their resistance to pneumonia, measles and other prevalent diseases. The basic ingredient of most meals is a stiff porridge, usually made from maize meal, called mealie meal.

B. URBAN HOUSING STOCK

1. Tenure Patterns

Table 7 sets out the total housing stock for the local government areas in the ten main urban centers for which reliable data are available. Of these ten centers, Salisbury and Bulawayo account for 72 percent of the total stock.

From the total figures it can be seen that while a program has been instituted for selling government owned rental housing, only a small percentage of the residents of the local government areas own their own homes. In 1978, 80.1 percent of all dwelling units were owned by local authorities, while 16.1 percent were home-ownership schemes and 3.8 were tied housing.¹⁰ With the exception of Bulawayo where 33.4 percent of all low income houses comprise home-ownership schemes, the figure for this sector would be considerably lower. In the smaller centers, home-ownership is practically non-existent.

While no reliable figures for occupancy rates are available, it is interesting to compare the black urban population figures with the available bed spaces. Column six in the previous table sets out the estimated number of bed spaces on the basis of five per housing unit, as well as the single berths provided by the local authorities. Column seven shows the estimated occupants of these bed spaces on the basis of the total black population less those in private domestic employment who are largely resident on their employer's properties. The figures indicate the total number of bed spaces in the ten centers is over 700,000, while the estimated number of occupants of these bed spaces is almost 950,000. This breaks down to 1.4 persons per bed space. This lack of bed space leads to the practice of "hot bedding" whereby bed space is rented to individuals for use during daytime hours.

¹⁰ Tied housing refers to all dwelling units provided by government, employers or developers.

TABLE 7

Low Income Housing Stock
1978

<u>TOWN</u>	<u>LOCAL AUTH. HOME OWNERSHIP SCHEMES</u>	<u>LOCAL AUTH. LEASED & RENTED HOUSING</u>	<u>HOUSING PROVIDED BY GOV'T, EMPLOYERS, DEVELOPERS</u>	<u>TOTAL HOUSING STOCK</u>	<u>SINGLE BERTHS</u>	<u>BED SPACES</u>	<u>ESTIMATED OCCUPANTS OF BED SPACES</u>	<u>ESTIMATED HOUSING BACKLOG MAY 1979</u>
Salisbury & Chitungwisa	7,971	47,383	1,202	56,561	30,164	312,969	426,840	18,900
Bulawayo	12,434	22,393	2,370	37,197	4,078	190,063	165,270	8,000
Gwelo	341	9,361	181	9,883	3,692	53,107	55,390	2,000
Utshali	24	9,085	546	9,655	6,098	54,373	48,170	1,300
Que Que	189	5,168	70	5,427	860	27,995	45,470	1,680
Gatooma	67	4,119	60	4,246	2,278	23,508	29,140	720
Sinota	8	1,936	240	2,184	620	11,540	22,330	500
Fort Victoria	33	2,013	154	2,200	1,032	12,032	17,690	870
Marandellas	29	2,110	114	2,253	402	11,667	19,450	180
Shabani	3	1,059	15	1,077	---	5,385	16,790	300
TOTAL	21,099	104,632	4,952	130,683	49,224	702,639	946,540	34,450
% by Type of Ownership	16.1	80.1	3.8	100.0				

-29-

SOURCE: Ministry of Local Government and Housing and Local Authorities.

This figure for bed space occupancy is, however, a conservative estimate due to the fact that recent estimates by the Department of Physical Planning put the population in the Local Government Areas of the seven main centers as much as 33 percent higher than the official figures. This is a very clear indicator of considerable overcrowding. Salisbury city officials have found that it is not uncommon to find over ten persons resident in one house.

Another indicator of the increased demand for housing by the black urban population is evidenced by the incipient growth of squatter settlements on the outskirts of the major centers. Given the continuing pace of rural to urban migration, combined with past security problems in the rural areas, local authorities have made special provisions for certain squatter settlements. Temporary accommodations consisting of subdivided plots, communal toilets and water supply have been provided at various locations on the outskirts of Salisbury, while other settlements of the site and services type have also been developed. While no official figures are available, the International Red Cross has estimated that by mid-1980 there were as many as 50,000 persons (including war refugees) squatting in and around the three major centers.

2. Types of Low Income Housing

The number of types and sizes of low income housing produced "formally" in the Local Government Areas varies greatly throughout the country.¹¹ The designs and construction techniques vary according to the year of construction, the construction materials used, the urban center in which they are located and the contractor or local authority who undertook the construction. Types of low income housing that have been constructed include blocks of flats, terraced housing, semi-detached and detached houses. Semi-detached single-storey housing is by far the most common. Table 8 shows the number of dwelling units of the various types in a sample of centers from which the information could be obtained.

From these figures it can be seen that 59.8 percent of the housing stock in these centers is made up of semi-detached units, while 87.1 percent are either detached or semi-detached. Flats make up 4.6 percent, while terraced housing constitutes 8.3 percent. Of the cities considered, only Salisbury and Bulawayo have flats.

¹¹ It should be noted that until the past 2-3 years, the uncontrolled production of owner-built housing was not allowed and did not appreciably exist in the urban centers of Zimbabwe.

TABLE 8

Number of Units by Types of Dwelling
In Various Urban Centers

<u>TOWN</u>	<u>DETACHED</u>	<u>SEMI- DETACHED</u>	<u>TERRACED</u>	<u>FLATS</u>
Salisbury ¹	9,331	29,365	2,824	1,027
Chitungwisa ²	6,026	10,037		
Bu awayo	12,881	13,123	4,183	4,392
Que Que	375	4,294	1,009	---
Redcliff	---	555	18	---
Gatooma	82	4,364	470	---
Shabani	142	646	271	---
Sinola	1,718	1,193	---	---
Marandellas	103	2,066	180	---
Hartley	561	1,763	52	---
Selukwe	200	68	---	---
Karoi	415	771	---	---
Kariba	41	582	808	---
Chiredzi	363	832	---	---
Flumtree	---	395	---	---
Belt Bridge	35	606	---	---
TOTAL	32,243	70,660	9,815	5,427
% Distribution	27.3	59.8	8.3	4.6

¹ Excludes 158 employer housing and 320 dwelling units used for singles.

² The figures for Chitungwisa are based on an estimate of the distribution between detached and semi-detached units.

SOURCE: Urban and Rural Councils.

3. Construction Materials

In order to reduce the cost of formally produced higher density dwellings, the number of building operations required and the number of decorative finishes have been reduced to a minimum. Such factors as brick veneer, plaster, ceilings, complicated roof trusses, tiled roofs, timber, plastics or other floor surfaces, built-in cupboards, intricate plumbing and high quality decorative finishes have been omitted. The principal elements in low income housing comprise the foundation, the superstructure, the floor, the roof and the minimum of fittings and decoration. The following paragraphs briefly describe the building materials used in the main elements of standard low income housing.

a. Foundation. Generally, foundations are approximately 400mm deep with a concrete footing of 300mm by 100mm or 150mm, depending upon conditions, supporting a brick, concrete block or clay block foundation wall.

b. Superstructure. The most commonly used materials for wall construction are either a hollow concrete block (460 x 300 x 110mm) or a hollow clay block (230 x 230 x 110mm). Burnt clay bricks may also be used as well as prefabricated concrete panels, although the latter are just being introduced into present day construction. A waterproofing coat of cement wash is normally applied externally. Internal finishing consists of cement wash or a cement slurry and limewash.

c. Floors. The materials used in floor construction will vary according to the ground conditions. It is common to have a hardcore base between 25mm and 150mm thick covered by a 75mm layer of coarse gravel under a 65mm concrete floor with a floated finish. Recent ultra low cost construction contemplates an earthen floor which would be finished later by the owner.

d. Roof. Timber roof supports normally take the form of wall plates and purlins only. They are normally made of laminated pine which does not warp or twist. Corrugated asbestos sheets, known locally as trafford tile sheets, are used exclusively in the roof covering.

e. Fittings. Most low income houses have a combined toilet and shower area. Toilets usually consist of pedestal or squat pans with a cistern. Most houses are fitted with at least one sink, either in the kitchen or on the outside of the house. The sink may be of stainless steel, concrete or asbestos cement.



FITTINGS FOR HDSB ULTRA LOW COST UNIT

f. Space and ventilation standards. The minimum floor area of any one room, except the kitchen, is seven square meters with a horizontal dimension of 2.1 meters. In addition, adequate headroom, daylight and ventilation must be provided. The accepted figures are on the order of 2.4 meters for minimum clear height from floor to roof, a minimum window area of 10 percent of the floor area, of which 50 percent should be able to open and permanent ventilation in the form of two air bricks set as close to the roof as possible.

4. Housing Costs

In Zimbabwe, many factors influence the cost of standard low income housing: design of the unit; the building materials used and the costs of obtaining these materials; the services and fittings; the contractor or local council responsible for building the house; the location of the urban center; and the size of the project and the size of the house. For this reason, it can be expected that housing costs per square meter will vary greatly depending on the urban center.

A 1979 survey conducted by the Whitsun Foundation shows this wide divergence. A relatively low construction cost of approximately US\$40 (Z\$25) per square meter for a four-room house, including electricity, is found in Marandellas. The most expensive costs are found in Gatooma where two single-room semi-detached units are placed back to back to form a block of four units costing over US\$88 (Z\$55) per square meter, including electricity. Many factors account for these cost differences. In the Marandellas scheme, there are four rooms and its total area is 61.3 square meters, while in Gatooma there is only one room and the house area is 21.1 square meters. Marandellas has also been able to achieve considerable savings by buying materials in bulk and utilizing local contractors under council supervision to undertake the construction. Most housing costs of the other local councils fall within this range.

In Salisbury where large contracts are undertaken, it has been possible to keep building costs relatively low. Costs per square meter in Salisbury and Chitungwiza compare favorably with the other urban centers.

Given the fact that the manner of costing low income housing schemes varies from center to center, it is still possible to make comparisons between different centers and different types of housing. Core houses, built in the Salisbury area in mid-1979 measuring approximately 26.5 square meters and including electricity, cost in the range of US\$1,680 (Z\$1,050) to US\$1,920 (Z\$1,200). Standard housing ranging from two rooms to four rooms

and including electricity cost within the general range of US\$1,920 (Z\$1,200) to US\$3,040 (Z\$1,900).¹²

5. Costs of Housing Related Services

In addition to the costs of the dwelling unit, the cost of related housing services -- roads and storm drainage, sewerage and water networks -- vary from project to project. Variables that affect the cost of services include the size of the project, the density of development, the nature of the terrain and soil conditions, the unused capacity in sewerage disposal works, the access to existing water mains, trunk sewers or main roads or the need to construct new major services and the level of service provided in each case.

Table 9 presents the 1978 costs of on-site services provided in four Salisbury projects. In all cases, the access roads to the plots are gravel, there is water-borne sewerage and each plot has its own water connection. With respect to off-site costs, the three Seki projects were analyzed for major infrastructural services required for project development. The following additional costs were identified:

Trunk sewer:	Z\$ 33/plot
Main roads:	Z\$ 50/plot
Bulk water:	Z\$ 50/plot
Bulk sewerage:	Z\$ 25/plot
TOTAL	<u>Z\$158/plot</u>

According to these 1978 figures, the additional cost per plot of off-site infrastructure equalled roughly US\$256 (Z\$160). In the case of home-ownership schemes, there will be costs in addition to the dwelling unit and its related services. These include additional charges for survey fees, land costs and the costs of utility connections. In the case of site and services schemes, the cost of the shower/toilet unit must also be included.

a. Coverage of housing related public services. With the exception of the "legal" and "illegal" spontaneous settlements which have sprung up around Zimbabwe's major urban centers, the great majority of local government housing for the black urban population has been constructed along sound

¹² Official CSO statistics indicate an increase in the Building Materials Price Index of 17.6 percent between June 1979 and June 1980. Based on recent (late July 1980) responses to HSDB public tenders, actual increases in per square meter construction costs are running double that figure.

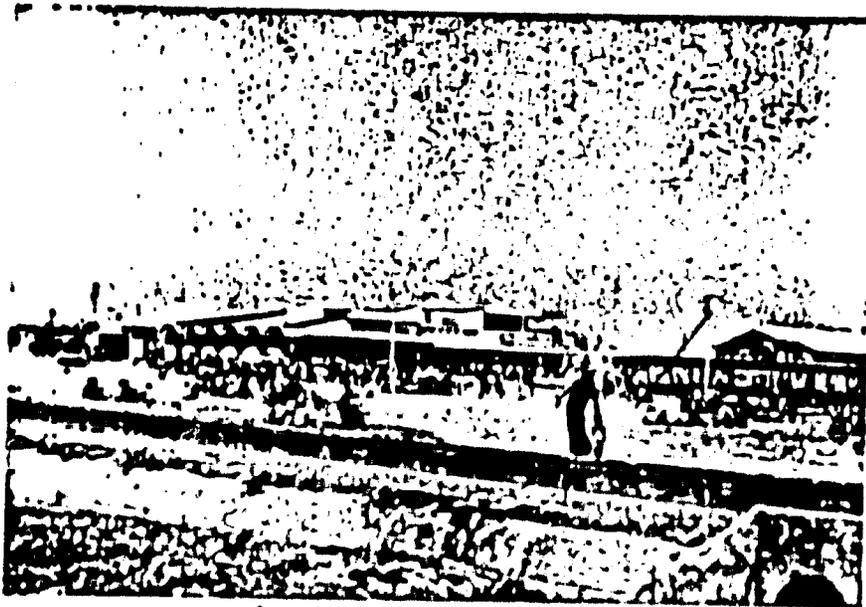
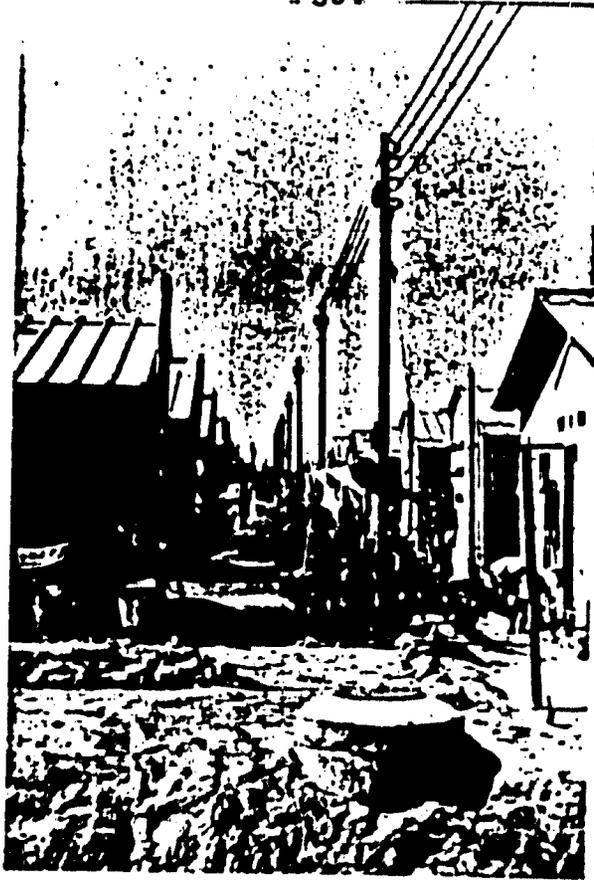
TABLE 9
Costs of Providing Services in Housing Projects
in Salisbury
1978

	<u>NO. OF STANDS</u>	<u>SIZE OF STAND</u>	<u>SEWERAGE & WATER Z\$/STAND</u>	<u>ROADS & STORMWATER Z\$/STAND</u>	<u>TOTAL Z\$/STAND</u>
Salisbury Seki M	1,743	200m ²	154	132	286
Salisbury Senl K	2,351	200m ²	136	140	276
Salisbury Seki J	1,593	200m ²	170	138	308
Salisbury Dzivaresekwa	1,500	200m ²	172	133	305

SOURCE: Township Development Branch and Salisbury Municipality.



**TYPICAL LEVELS OF ON-SITE SERVICES
HDSB PROJECTS**



**TYPICAL LEVELS OF ON-SITE SERVICES
HDSB PROJECTS**



CHIRUMBAHUYO PLANNED SQUATTER SETTLEMENT

engineering principles. The planned housing schemes have generally consisted of a full complement of public services. Roads providing vehicular access to the individual plots are graveled in all cases and macadamed in many instances. Storm drains, lined at major road junctions, are designed in conjunction with the road network. There are individual water-born sewerage and water connections for each plot. Most units now include individual electrical connection. Public lighting is provided by towers sited throughout the schemes. Solid waste disposal is also handled as part of local council administration of the schemes.

While the authorities have, in the past, prohibited the establishment of spontaneous settlements through the enactment of various pieces of legislation, the increasing tempo of rural to urban migration, combined with the security situation in the rural areas, has resulted in the special provision of certain squatter areas. These squatter settlements imply a reduced standard of public services. The planned areas provide for "temporary" accommodations consisting of subdivided plots, communal toilets and water supply and public lighting from towers. Other settlements of the non-planned variety have access to few, if any, public services.

b. Community facilities/services. The provision of schools for low income schemes is the responsibility of the Ministry of Education. Standards are generally on the order of one primary school for every 500-600 residential units and two multi-lateral secondary schools to every five primary schools. The primary care clinic is the most important medical facility that must be provided in a residential development. The Ministry of Health recommends the provision of one clinic per 40,000-50,000 population. Larger medical facilities such as hospitals would only be required for populations of over 100,000 persons. In addition, provision is made for corner stalls, shopping centers, churches, cinemas, beer taverns and other community and recreational facilities, service industries and administrative functions. The provision of community facilities and services by the appropriate ministry generally lags well behind the initial provision of the housing solutions.

c. Land use parameters. The following description represents the most common standards embodied in the preparation of a typical low income housing estate. (See Annex 1 for a complete listing of GOZ planning standards and civil engineering design criteria.)

(1) Residential plot size -- The majority of local government area housing schemes (both semi-detached and detached) have historically been constructed on plots of under 400 square meters, with not less than a 10-meter frontage. Larger plots were sometimes made available for detached dwellings, but only in rare cases do they exceed 400 square meters. The May 1980 GOZ housing plan envisages that low income housing development will use two sizes of plot:

10 x 20m (200m²) and 12.5 x 25m (312.5m²)

In order to ensure a satisfactory living environment, minimum space standards for both the unit and the surrounding open space are specified. The standards presently used are:

Minimum floor space ration
(house area) = 7.0m² per person

Minimum total living space
ratio (house area plus
garden and/or open space) = 35.0m² per person

Where there is insufficient garden space for each residential plot, it is felt that extra space be allocated within the residential development for public open space.

(ii) Road widths -- The following standards are called for when planning the alignment of various classes of roads:

District distribution:	25 or 30m road reserve 200m minimum radius of curvature
Local distribution:	15, 18 or 20m road reserve 150 minimum radius
Plot access road:	10 or 12.5 road reserve 50m minimum radius
Maximum gradient:	1:15
Cul-de-sac turning circle (10m and 12.5m roads):	20m x 14m

Access by footpath to certain plots is presently not considered to be an acceptable planning standard.

(iii) Open space -- Given the concern with insufficient garden space for each residential plot, stringent open space controls are applied to low income housing development.

Plot Size (m ²)	Maximum Permitted Plot Coverage (%)	% of Residential Layout Area Required for Public Open Space
200	28	29
312.5	20	10

In any layout, a minimum of 10 percent of the total development area is required to be reserved as public open space. This will include space for parkland, golf courses, river line preservation zones etc. and will ensure adequate public land for both passive and active recreation.

(iv) Residential densities -- Residential densities in the various low income housing schemes vary according to the terrain, the amount of land reserved for open space and community facilities, plot size and the circulation system. In comparison to other developing country housing schemes, the number of dwelling units per hectare in the local council housing is very low. Table 10 presents the official population, the number of dwelling units of all types and the area of the established townships of Salisbury.

6. Housing Need Projections

Although a forecast of housing need is difficult to make because of the variability of the many factors involved, it is possible to make an estimate based on clearly stated assumptions. The value of even estimated housing needs lies in the perspective of the demands which will be placed on the housing construction sector. The projections of housing need presented in Table 11 are based on three potential growth rates for Zimbabwe's black urban population,¹³ replacement of housing inventory losses (1 percent of existing stock) and a waiting list backlog of 45,000 dwelling units.¹⁴

Based on the analysis presented in the preceding table, the projected average yearly housing need for Zimbabwe's black urban population varies from a low estimate of 17,800 units to a high of 51,700 units. The high figure represents the anticipated housing need assuming the urbanization rate of 11.5 percent accepted as most probable by the authors of the "Urban Development in the Main Centres" report. Given the purported underreporting of the black urban population by the CSO (some studies have this underreporting to be over 30 percent) and past experience in the developing countries, an urbanization rate of 11.5 percent is probably not unreasonable. The estimated upper limit for housing need represents almost four and a half times

¹³ Analysis of varying rates of urbanization contained in the 1979 document "Urban Development in the Main Centres."

¹⁴ Housing backlog in 10 urban centers based on actual waiting list figures and estimates of those families having formal wage employment and requiring housing who have not registered their names on waiting lists.

TABLE 10

Gross Residential Densities in the Local Government
Areas of Salisbury

<u>TOWNSHIP</u>	<u>DMELLING UNITS (D.U.)</u>	<u>OFFICIAL POPULATION (P)</u>	<u>AREA (HA.)</u>	<u>DU/HA.</u>	<u>P/HA.</u>	<u>OCCUPANCY PER D.U.</u>
Dzivaresekwa	2,899	15,000	422	6.6	34	5.2
Glen Norah	7,003	35,600	713	9.8	50	5.1
Harare*	6,082	40,000	465	13.1	86	6.6
Highfield*	8,537	62,435	716	11.9	87	7.3
Kambuzuma	2,443	16,044	259	9.4	62	6.6
Mabvuku	5,728	35,000	629	9.1	56	6.1
Mufakose	7,500	48,900	454	17.0	108	6.5
Tafara	3,304	17,793	313	10.6	57	5.4
TOTAL	43,496	270,772	3,971	11.0	68	6.2

* These figures take no account of the single quarters and hostels in the various townships.

TABLE 11

Estimate of Housing Need
1980-1990

	<u>PROJECTED ESTIMATED LEVELS</u>		
	<u>Low</u>	<u>Medium</u>	<u>High</u>
1. Projected increase in urban black population ¹	691,000	1,233,000	2,726,000
2. Household formation ²	115,200	205,500	454,300
3. Replacement of inventory losses (1% of existing stock)	17,500	17,500	17,500
4. Backlog of dwelling units ³	<u>45,000</u>	<u>45,000</u>	<u>45,000</u>
5. Total Need	177,800	268,000	576,800
6. Average need per year	17,800	26,800	51,700

NOTES:

¹ Urban black population projections based on three levels of potential growth: (1) at current national rate of urbanization, 4.6 percent; (2) at twice the natural increase rate, 7 percent; (3) based on twice the natural increase rate plus a backlog of dependents of existing workers who would also migrate, 11.5 percent.

² Based on an average household size of 6.0 for the urban black population.

³ Based on the number of formally employed black males who have registered with the Local Council authorities for housing.

the number of higher density housing units constructed by GOZ during 1978 (11,800). Even the mid-range figure of 26,800 units represents an almost two and a half fold increase in past GOZ production performance.¹⁵

To further illustrate the composition of housing needs in Salisbury, Table 12 gives a breakdown of housing needs by wage group. The wage groups are based on the updated 1977 CSO wage distribution for the black urban population. Population and household size estimates are based on estimates from the previous table.

As indicated by the estimated 1980 wage distribution, the greatest housing needs (81.2 percent) are found among employees having incomes less than US\$176 (Z\$110) per month. Of that group, the largest percentage (38.6 percent) is from individuals earning between US\$86 (Z\$41) and US\$112 (Z\$70) per month. However, housing needs for employees having incomes above US\$240 (Z\$150) are also quite considerable (7.8 percent). At the lower end of the wage scale, only 4.4 percent of total housing needs result from persons earning less than US\$32 (Z\$20) per month.

The foregoing analysis of total housing needs and housing needs by income group illustrates that while housing policy should address all segments of the population, emphasis should be placed on those segments of the population where the greatest needs are demonstrated (i.e. below the 50th percentile).

¹⁵ Ministry of Local Government and Housing.

TABLE 12
Housing Need Projections in Zimbabwe by Income Group
1980 - 1990

YEARS COVERED	PROJECTED POPULATION AS OF JUNE '90 FOR LAST YEAR OF PERIOD COVERED¹ (000)	HOUSEHOLD SIZE	MONTHLY WAGE INCOME (Z\$)	HOUSEHOLD NEED²	ESTIMATED NO. OF HOUSEHOLDS BY WAGE GROUP AS OF JUNE 30 FOR LAST YEAR OF PERIOD COVERED	HOUSING UNIT NEEDS OF INCOME GROUP OVER 5-YR. PERIOD³
1980-85	1,787	6.0	Less than 20	4.4	13,105	6,050
			21 - 40	9.7	289,901	13,330
			41 - 70	36.6	109,007	50,325
			71 - 110	30.5	90,839	41,937
			111 - 150	11.0	32,767	15,125
			150+	7.8	<u>22,231</u>	<u>10,725</u>
				297,833	137,500	
1985-90	2,987	6.0	Less than 20	4.4	18,386	5,720
			21 - 40	9.7	40,530	12,610
			41 - 70	36.6	152,927	47,580
			71 - 110	30.5	127,439	39,650
			111 - 150	11.0	45,961	14,300
			150+	7.8	<u>22,591</u>	<u>10,140</u>
				417,833	130,000	

NOTES:

¹ Based on population projections from Table 3.

² Based on wage distribution for total Zimbabwe urban black employees from Table 5.

³ Based on figures from Table 11 and on the assumption that the 45,000-unit backlog will be cleared up during the 1980-85 period.

SOURCE: PADCO Elaboration.

CHAPTER III

SHELTER INSTITUTIONS AND PROGRAMS

A. GOVERNMENT ADMINISTRATIVE STRUCTURE

i. Basic Organization

The Government of Zimbabwe is currently undergoing a restructuring and a regrouping of ministries and executing departments. This reorganization is resulting in a reallocation of duties accompanied by changes in personnel and staffing patterns. The following account of the basic GOZ organization for the provision of housing gives as true a picture of the situation as can be ascertained as of August 1980.

2. GOZ Development Plan

In order to provide the present government with a composite background to the public sector needs of the country, the interim government prepared in 1979 the document "Proposals for a Five-Year Programme of Development in the Public Sector." It was envisaged when the document was prepared that the present government would have major policy decisions to make in connection with various aspects of development, and that the recommended program would be modified, as required, in light of these decisions.

The major objectives of the recommended program were:

- To stimulate and facilitate the growth of the economy through the continued development of all infrastructural requirements.
- To improve the quality of life and the standard of living in the population generally and to boost economic output particularly of the presently non-commercial agricultural sector.
- To raise the general standard of education and to increase the local output of higher skills through post-school training.
- To eliminate the shortfall in urban housing and to meet the rising demand for better housing throughout the country.

The major priorities assigned to implementation are:

- Power supply.

- Transport capacity and communication.
- Rural development and education.
- Housing, health and other services.

In addition to establishing urban housing and its related services as a priority area for implementation, the Five-Year Programme, in its guidelines for production quotas, underscored the inability of most low income households to afford even a basic core house. The Programme recommended the construction of only a limited number of finished and partially finished units. The balance of the program was to be devoted to providing serviced stands on which the households would build their own dwelling. Included in the concept of serviced stands was the idea of transit areas with communal ablution units, where an occupier may build whatever accommodation suits him or her.

Transit areas were seen as a necessary interim stage to serve both a sudden influx of urban population and for those who require time to accumulate sufficient money to construct their own homes. It was envisaged that as the influx eases, transit areas will be redeveloped for conventional housing.

The program as set forth in the five-year development document emphasizes security of tenure. Except for the transit areas and a percentage of complete homes which will be retained for lease to persons who do not wish to own their own properties, freehold will apply once minimum building requirements are satisfied.

Unfortunately, many of the main points of the proposed Five-Year Programme dealing with urban housing have not been incorporated into the present GOZ Five-Year Plan for Low Cost Housing Construction. The 1980-85 GOZ construction plan is based exclusively on the production of finished and partially finished ultra low cost, "standard" core and "standard" house type units. The idea of a serviced stand as a viable alternative for low income urban households has, for the moment, been discarded.

3. Urban Planning Functions -- National and Local Government Levels¹

Contemporary ideas of urban planning in Zimbabwe date from the British colonial influence of the early 20th century. Early Town and Planning Acts (1933 and 1945) were mainly concerned with regulating the peri-urban sprawl which during that era was being hastened by the automobile and was threatening the expansion of the major centers by imposing a disordered array of houses and smallholdings on the urban fringe. These smallholdings lacked all but the most rudimentary of communication and sanitation. The system of physical planning up until the promulgation of the Regional Town and Country Planning Act of 1976 was essentially concerned with control over this type of physical development, including the specification of the use to which land could be put, the appearance of buildings and the landscape, and densities of development.

The 1976 Act broadens the concept of planning from a purely urban context to one including a two-tier system of planning with regional plans being in the upper tier and master and local plans being on the lower tier. The former plans would cover wide issues including known national policies for the whole of a local planning authority's area. The latter plans would consist of more detailed plans of an urban and rural nature, and would only cover a portion of the local planning authority's area. In general, the local plans would be produced by local planning agencies and not be the subject of government scrutiny provided they complied substantially with the pattern of development stipulated in the upper tier plans.

The present Department of Physical Planning, located within the Ministry of Local Government and Housing, evolved from earlier town planning departments. It owes much of its actual structure to the 1976 Planning Act. The Department is presently organized with its head office in Salisbury and with four separate provincial planning offices in Bulawayo, Gwelo, Salisbury and Umtali. The National Planning Office undertakes master plan studies on behalf of the local planning authorities. It is also responsible for research and special projects, the technical examination of statutory plans prepared by local planning authorities and for the coordination of government development and land requirements.

¹ Most of the material in this section has been culled from the November 1979, Vol. 13, No. 11 issue of the Zimbabwe Science News, the Journal of the Zimbabwe Scientific Association.

The provincial planning offices have a wide range of duties including advising local authorities (other than Salisbury, Bulawayo and Umtali) on the preparation of master and local plans and on all applications for major development. Other provincial planning duties include the preparation of layouts for low cost housing projects and also layouts for state land. The Minister has delegated his powers for the approval of subdivision applications and applications for the consolidation of land to provincial planning offices.

Local planning authorities in the three major cities -- Salisbury, Bulawayo and Umtali -- are responsible for the preparation of plans dealing with detailed planning issues of mainly local significance. The Minister of Local Government and Housing maintains the right of review of these local plans.

The 1978 Act also gives the recently restructured Ministry of Lands, Resettlement and Development the authority for the preparation of certain master and local plans covering parks and wildlife lands.

4. Relevant Additional GOZ Legislation

In 1977, the Ministry of Local Government and Housing formulated the Model Building By-Laws. These by-laws are a set of finely detailed regulations specifying exact technical requirements with respect to the design and construction of buildings and their related services. The components covered include the foundations, masonry and walls, miscellaneous construction materials, water supply, lighting, drainage and sewerage, ventilation, fire protection and public safety precautions. The by-laws provide for the highest level of structural safety and operational efficiency.

It was intended that the by-laws would form the basis for the control of building development throughout the country. However, few local authorities have adopted them as yet. It is envisaged that the model by-laws may be adopted in part or in whole in certain areas or entire urban areas. Also, the by-laws could apply to certain types of buildings in specified areas.

Most local authorities already have their own by-laws which have been used as the basis for building development control. Generally, the regulations regarding low income housing constructed by the local authorities in Local Government Areas do not lay down such stringent specifications as those of the Model Building By-Laws. It has been estimated that the least expensive dwelling unit which could be constructed using Model By-Laws specifications would cost in the range of US\$8,000-9,600 (Z\$5,000-6,000). The Housing Services Development Branch of the Ministry is not constrained by any building regulations in its housing schemes which serve low income households.

Despite this, the standard of low income housing constructed in terms of the specifications considered above conforms to many of the most important requirements in the Model By-Laws. The only major deviations are with respect to the thickness of walls and the size of concrete footings.

Finally, local authority by-laws permit the construction of ultra low cost and site and services type housing schemes, which although not meeting the general construction requirements normally meet those concerned with health, such as size of rooms and ventilation.

Section IV.F discusses relevant environmental legislation.

5. Provision of Low Income Shelter

a. Local government system. Practically all of the provision of low income shelter in the urban areas of Zimbabwe is done through the Ministry of Local Government and Housing and the various local authorities. Local authorities consist of rural and urban councils. The system of rural councils is being reorganized under the new government to incorporate the former tribal trust lands. There are three categories of urban councils: municipal councils, town councils and local boards (see Table 13). The differences are largely of size and status. There are few differences in the way the different types of urban councils undertake low income shelter projects and related activities.

The Ministry of Local Government and Housing exercises a number of controls over the local councils. These include financial controls such as the approval of budgets, the approval of borrowing powers and the appointment of auditors. The Ministry exercises power over local government policy matters including the preparation and approval of urban master plans and frequently more detailed site plans for housing projects, the location of Local Government Areas (formerly called African townships), the provision of low income housing and the operation of public transport services.

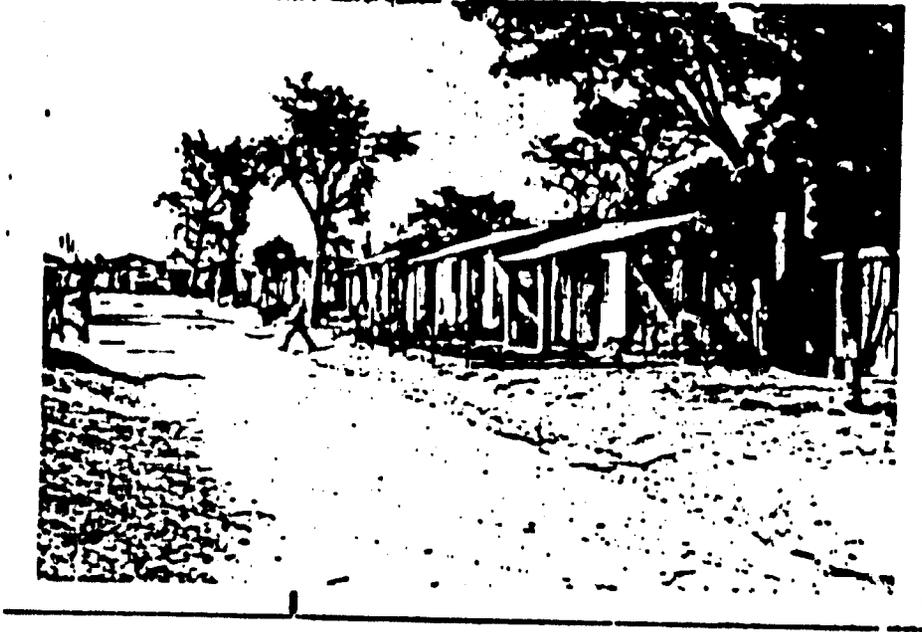
Urban councils have a large degree of power in the provision and financing of public utilities, works and services. This subject is discussed in Chapter IV.B.

Local Government Areas are the low income housing areas which have been built by local authorities. These areas are governed and accounted separately from low density, high income areas. LGA's have a limited form of self-government. Area Boards are being established with elected members and constitutions granted them by the Minister of Local Government and Housing. They must be consulted by urban councils in such matters as primary education and the operation of beer halls. Area Boards may progress through the various levels of local

TABLE 13
Urban Councils
1979-1980

<u>MUNICIPALITIES</u>	<u>POPULATION</u> (December 31, 1979)
Bulawayo	363,000
Fort Victoria	24,000
Gatooma	33,000
Gwelo	70,000
Hartley	15,000
Marandellas	23,000
Que Que	51,000
Redcliff	19,000
Salisbury	627,000
Sinoia	27,000
Umtali	63,000
TOTAL	1,315,000
<u>TOWN COUNCILS</u>	
Victoria Falls	N.A.
Kariba	N.A.
Selukwe	N.A.
TOTAL	N.A.
<u>LOCAL BOARDS</u>	
Chitungwiza	N.A.
Wankie	39,000
TOTAL	N.A.

SOURCE: Ministry of Local Government and Housing.



**ST. MARYS
LOCAL GOVERNMENT AREA DATING FROM 1960'S**

administration to the status of municipality. To date, two local boards exist in Local Government Areas, Wankie and Chitungwiza.

The accounting for Local Government Areas is kept separate from the other financial transactions of the local authorities. A property taxation system based on valuation is not applied in the LGA's as it is in the low density areas. Rather, a constant "supplementary charge" is collected on each plot throughout a specific LGA. The supplementary charge is calculated to recover the cost of services including street lighting, sewerage, rubbish removal and administration. These charges do not take into account the size of plots nor the value of the buildings constructed on them. Charges for water and electricity are usually made separately.

The Salisbury Municipal Council. The principal agency within the Salisbury Municipal Council responsible for low cost housing is the Department of Community Services. This department is responsible for the administration of the following Local Government Areas:

<u>LGA</u>	<u>POPULATION</u> <u>(registered)</u>
Harare	41,644
Hostels	11,994
Mabuuku	32,159
Mufakose	49,560
Highfield	59,925
Glen Norah	37,158
Glen View	30,802
Tafara	18,013
Dzwaresekwa	24,692
Kambuzuma	15,200
Marimba Park	1,011
Westwood	715
Total Registered Population	323,200

The total unregistered population in Salisbury is estimated at about 273,000 which means that the total population of the Local Government Areas in Salisbury is about 600,000.

In Salisbury, the Department of Community Services advises on the need for low income housing and drafts preliminary proposals. The Assistant Director for Planning and Social Services is responsible for sample surveys and finding out references in design and services. There is also an Assistant Director for Area Administration in charge of built-up areas. His functions include rent collection, maintenance and the sale of rental houses to sitting tenants. Each Local Government Area has its own administrative office for this purpose. There is also an Assistant Director for Administration and Finance.

Technical planning for housing projects is performed under the Department of Works. This department is also responsible for implementing those housing projects, as well as infrastructure and other public works, which are undertaken directly by the municipal council.

The City Treasurer's Department plays an important role in the financing of low cost housing and related infrastructure, as described in Chapter IV.D.

b. National Government

The Ministry of Local Government and Housing. The Ministry of Local Government and Housing, as its name implies, exercises a wide range of functions in the provision and financing of housing as well as in the other areas of responsibility for the local authorities. The Ministry's hierarchy includes secretaries for both housing and local government. Urban planning is overseen by the Ministry through the Department of Physical Planning. The Ministry is also responsible for housing policy formulation, control of the Local Government Areas Building Fund, approval of borrowing powers for local authorities and housing project approval. (See Annex 2 for relevant MLGH organization charts.)

The Housing Development Services Branch (HDSB). Many of the functions of housing development are actually undertaken by the Housing Development Services Branch which is a separate branch of the Ministry under the Secretary for Housing. The principal functions of the HDSB are as follows:

- To undertake (directly for government) major low cost housing projects including all aspects of design, contract tendering and administration of housing, infrastructure, commercial facilities and primary schools.
- To advise and act as consultants to the smaller local authorities in all aspects of low cost housing development, including documentation and the tendering and administration of contracts.
- To advise the Minister on proposals for low income housing projects submitted by the local authorities.
- To undertake research to help with the formulation of sound housing strategies, to aid in the development of construction standards and techniques to reduce costs and to evaluate housing layout and town planning considerations.

6. GOZ Budgetary Considerations for Housing

a. Housing expenditures. The present section considers the share of national investment capital presently being devoted to housing. Table 14 shows the national gross fixed capital formation between 1968 and 1978 at current prices as well as the disaggregated GFCF figures for residential development and for low income housing development.

From these figures it can be seen that residential development as a percentage of GFCF reached a peak of 16.1 percent in 1970, and in recent years since that date has been considerably below that figure. In addition, low income housing accounted for only 3.2 percent of GFCF in 1977, and has never, at any time, accounted for more than 3.8 percent. Since the greatest housing shortages occur in the low income sector and, since in recent years, the housing requirements for the upper and middle income groups have been adequately served, it is clear that the great deficiencies in gross fixed capital formation in housing fall in the low income sector.

Nonetheless, low income housing fixed capital formation has been rising in relation to all residential development since 1974. This rise would, however, have been lower were it not for the fact that since 1974 there has been a decline in the overall level of investment. In real terms, gross fixed capital formation has also declined from US\$660.2 million (Z\$412.6 million) in 1974 to US\$434.2 million (Z\$271.4 million) in 1977 (1974 prices). As a percentage of GDP, gross fixed capital formation has also declined from 23.5 percent in 1974 to 19.0 percent in 1977. Without having access to the supporting data, indications are that fixed capital formation in low income housing has continued to rise in relation to gross fixed capital formation in 1978 and 1979. It is clear, however, that if development of low income housing estates is to keep pace with the influx to the urban areas, a substantially larger portion of the gross fixed capital formation will have to be accounted for by low income housing.

b. Cost recovery mechanisms. All capital and maintenance/operation costs associated with the provision of shelter and its related services are recovered in two ways. There presently exist no subsidies in the Zimbabwe low income housing program. The most recent mechanism for cost recovery establishes that capital, interest and redemption charges for land, dwelling unit construction, all services within the plot boundary, electricity connection and electricity installation (in-house) and on-site roadworks and stormwater drainage are recovered on an annuity basis at 8 percent per year for 25 years. The capital costs for water (including bulk supply treatment and internal reticulation to stand boundary), sewage (including major treatment works, major pipelines and internal reticulation to stand boundary), refuse collection, electricity supply and public lighting are recovered through a series of monthly user service charges.

TABLE 14
Gross Fixed Capital Formation (GFCF)
1968-1977
 (in Z\$ million)

YEAR	TOTAL GFCF	RESIDENTIAL GFCF	RESIDENTIAL AS A % OF GROSS	LOW INCOME HOUSING GFCF	LOW INCOME HOUSING AS A % OF GROSS	LOW INCOME HOUSING AS A % OF RESIDENTIAL
1968	148.3	22.5	15.2	1.7	1.1	7.6
1969	142.0	22.7	16.0	3.0	2.1	13.2
1970	170.7	27.5	16.1	3.1	1.8	11.3
1971	216.9	29.3	13.5	3.2	3.8	28.0
1972	250.9	36.1	14.3	3.7	1.5	10.2
1973	324.4	49.7	15.3	7.1	2.2	14.3
1974	412.6	53.7	13.0	5.2	1.3	9.7
1975	462.2	42.0	9.1	9.8	2.1	23.3
1976	395.0	43.2	10.9	12.0	3.0	27.8
1977	386.0	42.7	11.1	12.2	3.2	28.6
1978	330.0	33.0	10.0	N.A.	N.A.	N.A.

SOURCE: Central Statistical Office.

Discussions with HDSB and Salisbury City Council officials during August 1980 indicate that the household user service charge for low income housing schemes coming on-line in Salisbury will equal US\$26.91 (Z\$16.82). This amount breaks down in the following manner:

- Supplementary charges. A charge of US\$8.88 (Z\$5.55) to cover capital and redemption of tower lighting, running costs and/or maintenance of tower lighting, roads, health inspectorate and fire brigade.
- Sewage charge. A charge of US\$3.20 (Z\$2.00) to cover capital and redemption charges for all sewage facilities including major treatment works, major pipelines and internal reticulation to the stand boundary.
- Waste management charge. A charge of US\$0.96 (Z\$0.60) to cover the provision of twice weekly refuse collection.
- Minimum water charge. A charge of US\$2.51 (Z\$1.57) to cover capital and redemption charge for all water including bulk supply, treatment and internal reticulation to the stand boundary. This minimum charge entitles the user to a water allowance of 13 m³/month (approximately 75 liters per capita per day). An extra charge for water use above 13m³ is US\$0.19 (Z\$0.121) per cubic meter.
- Electricity charge. A minimum charge of US\$7.20 (Z\$4.50) to cover the domestic metered supply grid.
- Administration charge. A charge of US\$4.16 (Z\$2.60) to cover rent collection, organisation and staff requirements for building inspection and supervision.

B. HOUSING PROGRAM

1. Public Sector

As mentioned previously, housing projects are usually initiated at the local level by the departments in charge of the administration of Local Government Areas. In Salisbury this is done by a Housing Projects Team of architects, engineers, sociologists and health officials which meets every two weeks under the chairmanship of the Director of Community Services.

The plans for housing projects are developed at the local level, if possible, or with the help of the Ministry of Local Government and Housing, often with the help of the HDSB. Housing

projects are proposed to the Ministry in the form of estimates on an annual basis. Details of proposed housing programs are submitted at the end of each calendar year.

The Housing Section of the Ministry of Local Government and Housing decides on the proposals in accordance with the demand for housing and the available resources.

Once funds are approved, the local authorities must prepare more detailed project documents with costs and proposed standards. These are submitted to the Ministry who usually asks the HDSB to review them. The largest issue in this review process at the present time is the cost of the housing vis a vis the effective housing demand. Projects with high standards that do not meet demand are turned down by HDSB.

Local authorities requiring funding for their projects must advertise their intention to borrow. The Ministry of Local Government and Housing must approve borrowing power for the local authority before projects can be undertaken.

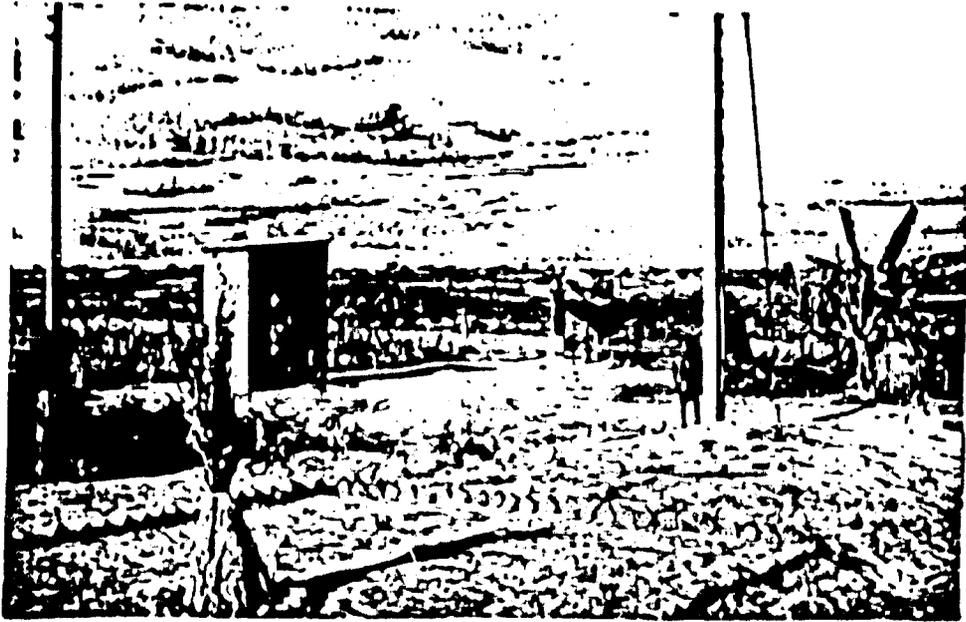
Projects that are approved by the HDSB and the Ministry must be planned in detail. Local authorities may do their own detailed design, engineering work and tender document preparation in-house, contract it out to consultants or ask the HDSB to do the work on their behalf. When the design work is undertaken by the municipalities, this cost is included in the price of housing. However, historically (this practice is presently under review by HDSB) when the HDSB does the design work it is not costed into the price of the houses. The HDSB has an Extraneous Professional Assistance (EPA) budget at its discretion for this purpose, but it must be used primarily for the smaller cities.

Each local authority has a tender board which oversees the tendering process. All low cost housing construction is contracted out to private builders and 90 percent of this is tendered openly.

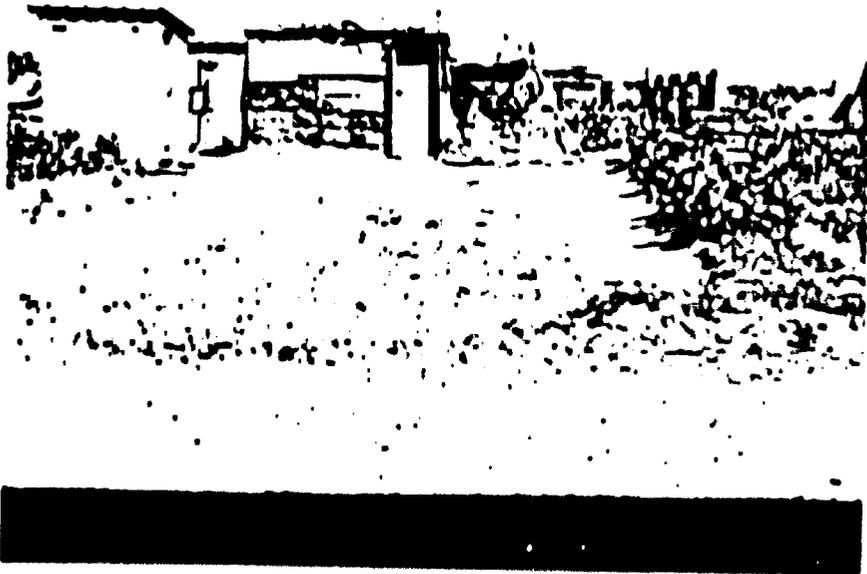
Completed housing is allocated at the local level. Priority is generally given to persons on waiting lists. Most housing is now sold on a hire purchase basis. Residents receive title after the repayment period, usually 25 years.

a. Recent Housing Projects

Glen View Sites and Services. Recently two types of housing projects have been constructed which are affordable by households under the median income level. One of these was a sites and services project built by the City of Salisbury at Glen View. This consists of 7,300 serviced sites with wet cores. These have been sold to homebuyers at a cost of US\$931 (Z\$382) in 1979. Buyers were permitted to build temporary housing provided they completed the first permanent room during the first three years.



**SALISBURY CITY COUNCIL GLEN VIEW SERVICED SITE
WITH WET CORE PROJECT**



**SALISBURY CITY COUNCIL GLEN VIEW SERVICED SITE
WITH WET CORE PROJECT**

Quite a high percentage of the homeowners are now extending their homes largely through the employment of small contractors and the use of savings and informal financing. The city is now providing US\$320 (Z\$200) worth of building materials as loans to facilitate home extensions. This amount is far short of the amount actually required to build a complete house. A system is being developed whereby inspectors certify each stage of construction to authorize loan drawdowns. It is hoped to extend this system with larger loans in the future.

Although little accurate data exists, city officials feel that the project tends not to benefit the lowest income groups because it has not provided immediate shelter. Those who have had to continue paying rent elsewhere have not had the resources for home extension. The quality of many of the home extensions indicates that many of the homeowners are not from the lowest income groups. However, the large number of home extensions (albeit not by the city's neediest families) indicates that this is a feasible way of increasing the housing stock at low cost to government, mobilizing saving and informal financing and creating informal construction employment. An improved system for home extension loans and technical support appears to be needed to reach lower income groups with this type of project.

The City of Salisbury has plans to develop 42,000 units during the next four years. It has a projected budget of US\$71.7 million (Z\$44.8 million) for the FY 80/81 to FY83/84 period as follows:

1980-81	Z\$ 8.8 million
1981-82	10.0 million
1982-84	12.0 million
1984-85	<u>14.0 million</u>
Total	Z\$44.8 million

Sale of the Existing Rental Housing Stock. Until recently most of the low cost housing built in the Local Government Areas was rented to beneficiaries. Recently, the government has changed this policy and has begun to sell the existing rental housing stock as well as most newly constructed housing. The sitting tenants were given the first option to purchase the housing. Sitting tenants were also given a discount on the purchase price of 2 percent for each year they had occupied the house up to 30 percent. The houses are then being sold at the rate of interest for which the house was originally obtained or the current building society rate, whichever is higher.

Ministry of Local Government and Housing. The GOZ has recently adopted a very ambitious Five-Year Low Cost Housing Construction Plan (including loans for home extensions and home electrification) which contemplates the construction of 167,000 dwelling units costing almost US\$1,180.8 million (Z\$738 million) during the five-year period of 1980-85 (see Annex 3). The plan calls for the construction of 27,000 units during 1980-81. This construction goal compares favorably to the mid-range housing need projection of 26,800 units estimated for the 1980's (see Section II.B.6). The proposed 1980-81 program was estimated to cost US\$116.6 million (Z\$72.9 million). However, it is already apparent that the necessary financing for the Year 1 program is not available. HDSB presently envisages a program of US\$67.2 million (Z\$42 million). It is hoped the difference of roughly US\$49.6 million (Z\$31 million) will be made up in the Year 2 (1981-82) program. If, however, the US\$44.8 million (Z\$31 million) is not available, the overall plan will have to be cut proportionately. Nevertheless, whatever the outcome to this question is, roughly 11,000 to 12,000 fewer units will be produced than planned during 1980-81. While the revised 1980-81 construction quota of approximately 15,000 units is an improvement on recent production totals (11,600 units in 1978), it falls far short of housing requirements based on need.

The proposed sources of the US\$67.2 million (Z\$42 million) financing are as follows:

Net repayment to LGABF	Z\$ 1.5 million
Treasury allocation	17.3 million
Loans from building societies and insurance companies (less amount of contracts in progress, extensions and Gleneagles)	12.1 million (8.4) million
Local authorities own resources	<u>19.5 million</u>
Net Total	Z\$42.1 million

The total amount of US\$67.4 million (Z\$42.1 million) compares favorably to the budget for FY 1979-80 of US\$49.8 million (Z\$31 million). There is, therefore, a proposed increase of about US\$17.6 million (Z\$11 million). Last year's budget for new housing was financed entirely with private lenders and the local authorities' own resources with no contribution from Treasury.

The new Five-Year Construction Plan fully embodies the policies of affordable standards and cost recovery. The Plan has received cabinet approval. Several important concerns are expressed in the plan document which reflect the government's desire to maintain appropriate costs and standards. It is stated that:

- Housing must be of a cost which as many low income people as possible can afford to occupy.
- Each house must be capable of being sold to the occupant, if only on a basis of lease with option to purchase resulting in freehold tenure.

Several recent low cost housing projects have been designed in response to the policies set forth in the Five-Year Plan. Specific housing types are affordable to households below the median income level.

Chitungwiza Ultra Low Cost Housing. Chitungwiza is a large black suburb about 24 km from the center of Salisbury. The early stages of Chitungwiza were developed by the Salisbury City Council in the mid-1970's. In 1978, the area became a separate local authority. Since that time, housing there has been developed by the HDSB. It is administered by a locally elected council.

Since the HDSB has been responsible for developing Chitungwiza, it has built about 13,300 units, of which 34 percent are "standard" 2-3 bedroom houses; 26 percent are "standard" core houses; and 39 percent are ultra low cost core houses. These latter are the same housing types proposed for the new development under Low Cost Housing Plan (see the following section). The ultra low cost core housing presently costs about US\$2,502 (Z\$1,820) and is generally affordable to households with incomes beneath the 50th percentile. It includes two small rooms and sanitary facilities.

Figure 2 shows graphically the affordability of the three dwelling types presently constructed by HDSB in relation to the existing wage distribution existing in Salisbury. (See Annex 4 for a tabular presentation of the material presented in Figure 2.) The services provided include on- and off-site water and sewerage systems. These costs will be fully recuperated by a two-tier system of monthly supplementary and amortized charges (see Section III.A.2).

The costs of the total proposed program are shown in Table 16.

In addition to new low cost housing construction, the proposed program includes loans for the extension of existing core housing such as in Glen View. Loans of US\$2,400 (Z\$1,500) are proposed for the owners of standard core houses for the addition of three rooms, and loans of US\$1,920 (Z\$1,200) are proposed for the owners of ultra low cost houses for the addition of two rooms.

Finally, the program also includes an additional US\$40 million (3000 million) for the provision of electricity to

FIG. 2

SALISBURY'S BLACK EMPLOYEES CUMULATIVE WAGE DISTRIBUTION RELATED TO THE AFFORDABILITY OF MDSB HOUSING UNITS

JUNE 1960

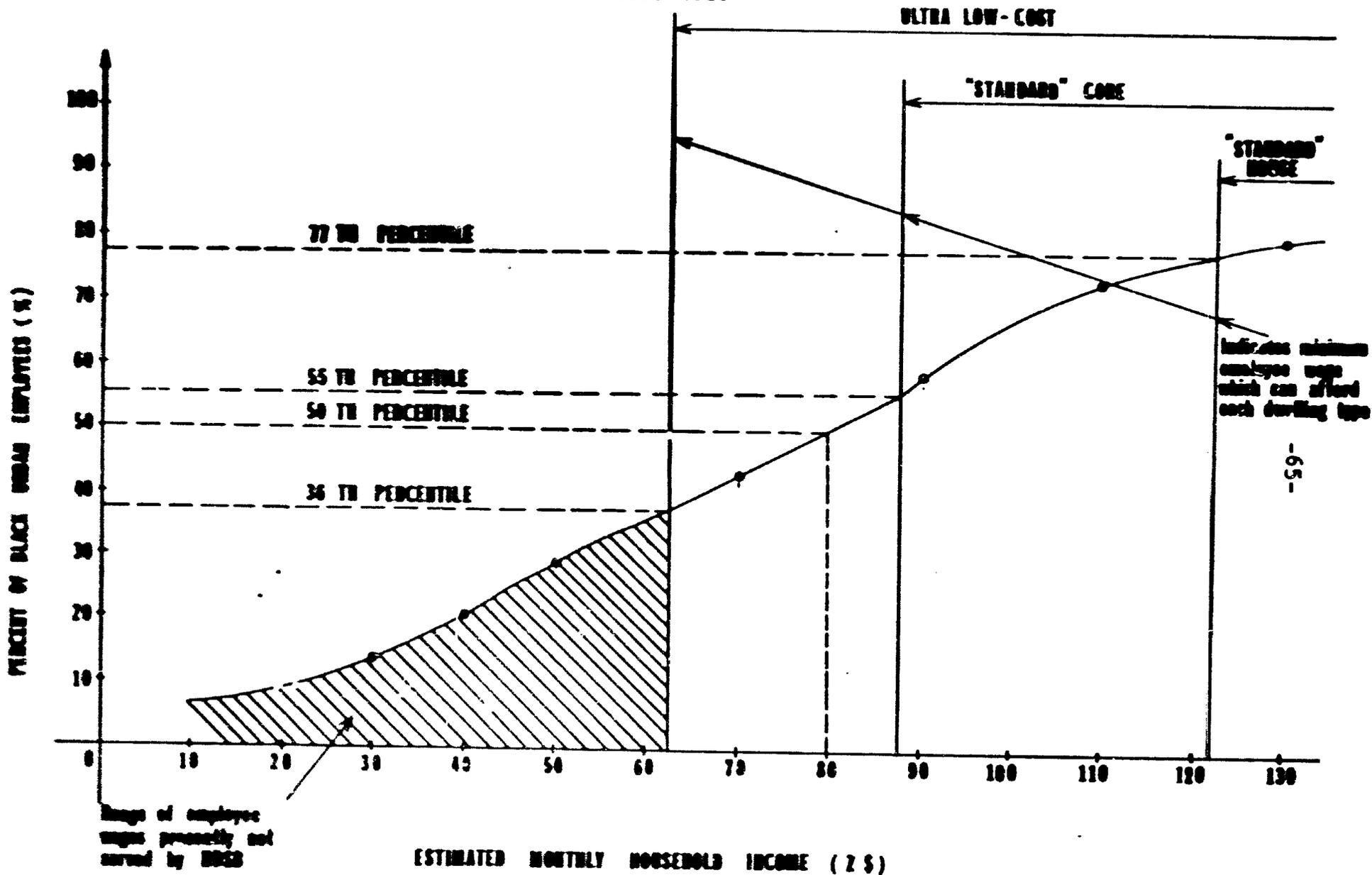


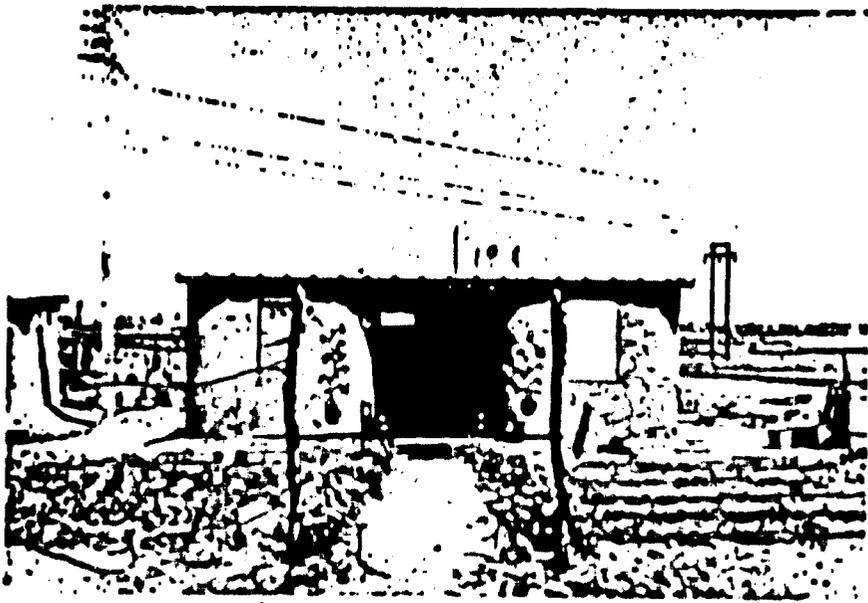
TABLE 15

Costs of Proposed GOZ Housing Program
(thousands of Zimbabwe dollars)

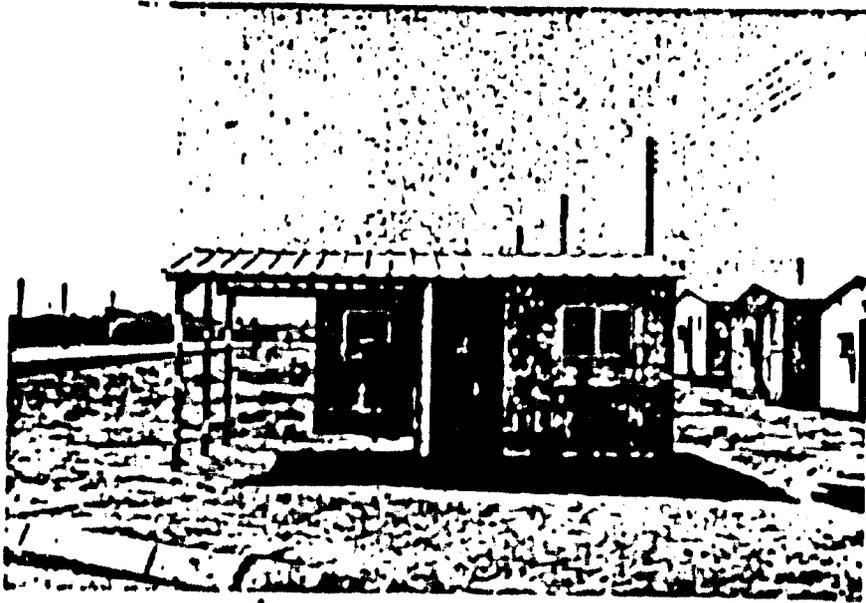
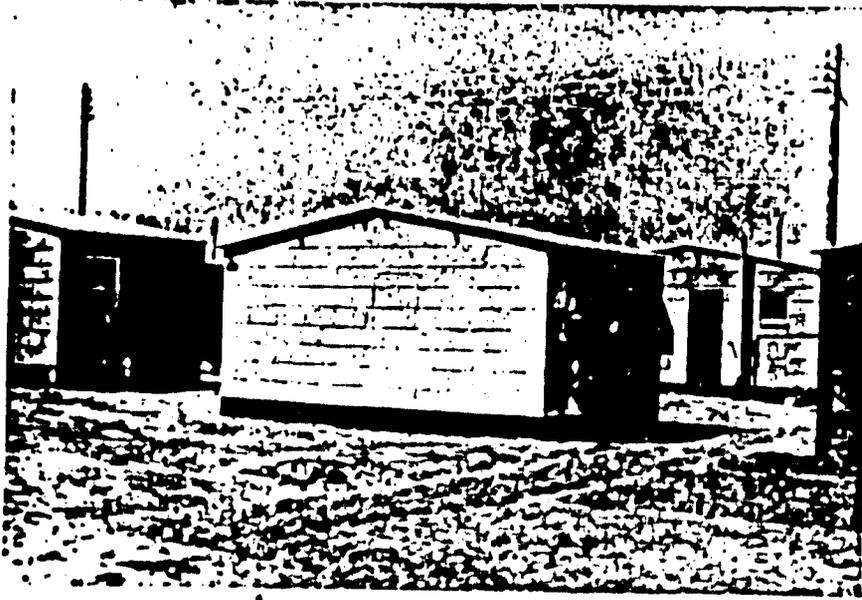
	<u># OF UNITS BUILT</u>	<u>COST OF NEW HOUSING*</u>	<u>HOME EXTENSION LOANS</u>	<u>ELECTRI- FICATIONS LOANS</u>	<u>TOTAL PROGRAM COST (Z\$)</u>	<u>TOTAL PROGRAM COST (US\$)</u>
Year 1	27,400	66,923		6,000	72,923	116,677
Year 2	30,400	85,386	30,126	6,000	121,512	194,419
Year 3	33,400	107,884	33,425	6,000	147,308	235,693
Year 4	36,400	135,193	36,723	6,000	177,916	284,666
Year 5	39,400	168,284	40,022	6,000	214,306	342,890
TOTALS	167,000	563,670	140,296	30,000	733,965	1,174,344

* Unit costs are increased at 15 percent per year.

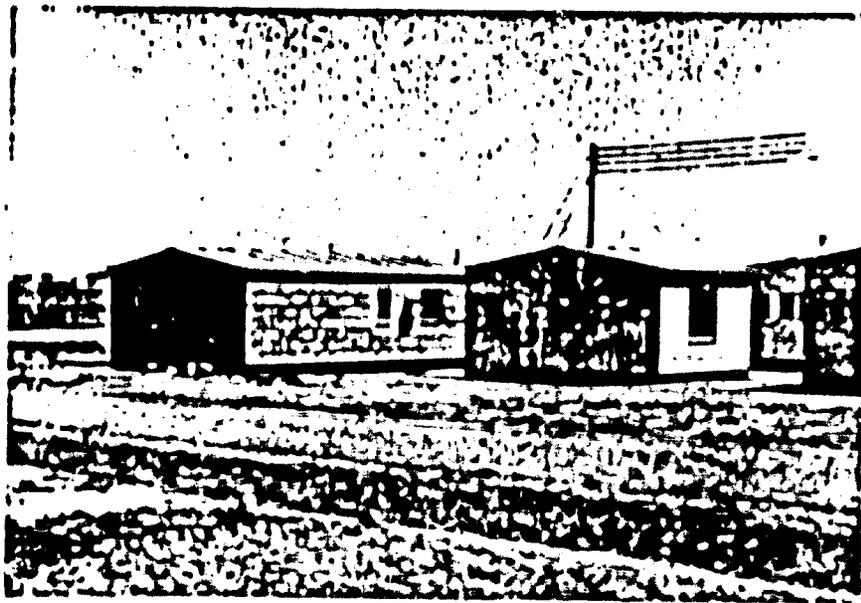
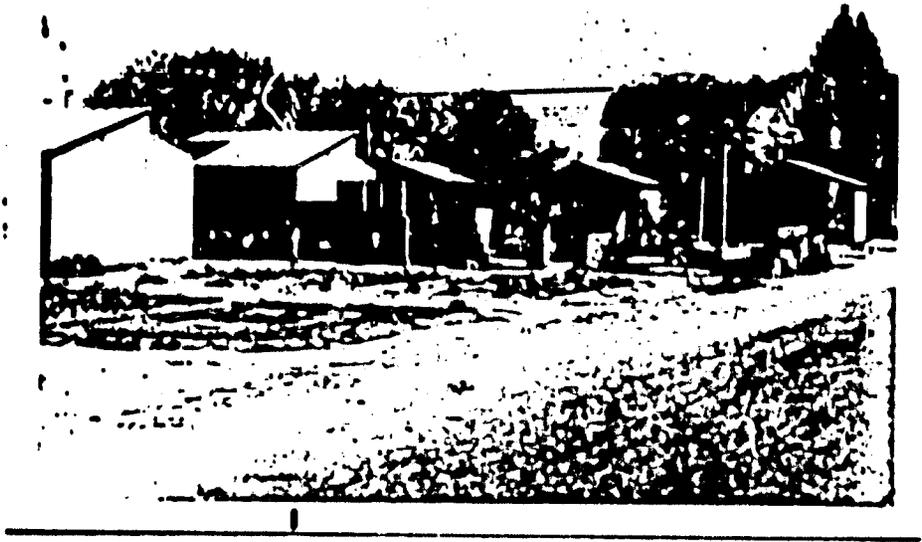
SOURCE: MLCH Five-Year Plan -- Low Cost Housing Construction Programme 1980/85.



HDSB ULTRA LOW COST UNIT



HDSB "STANDARD" CORE UNIT



OCCUPANT EXPANSION OF NDSB "STANDARD" CORE



OCCUPANT EXPANSION OF HDSB "STANDARD" CORE



HDSB "STANDARD" 2-BEDROOM HOUSE

existing houses. This is considered important to reduce the importation of kerosene and deforestation.

2. Private Sector

a. Building societies. The present role of the building society movement in the field of low income housing in Zimbabwe is limited. Building societies are rarely prepared to finance the purchase or construction of housing which costs less than US\$8,000 (Z\$5,000) to US\$9,500 (Z\$6,000).

With respect to higher cost dwelling units in the Local Government Areas, loans have been granted under either public service or non-public service guarantee schemes up to a maximum of 100 or 90 percent, respectively. In the past, government has given a full guarantee to the societies for the loans, but this procedure has now changed and the matter remains under negotiation between the building societies and government. In the Local Government Areas contiguous to the 11 main centers, the building societies are currently taking a risk of half the loan guaranteed; that is, 50 percent of a 100 percent loan or 45 percent of a 90 percent loan. The portion of the loan guaranteed by government is the first at risk. With respect to the Local Government Areas outside the 11 main centers, the societies will not presently grant a loan without a full guarantee from government.

With the increasing number of prospective homeowners in the Local Government Areas, the building societies realized that their normal building specifications were not affordable by a large percentage of these potential buyers. A new specification, known as the Grade B specification, was produced for the LGA's (see Annex 5). This specification allows a lower standard of interior finishings, but with respect to structural standards differs little from the higher specification.

The lower specification allows a greater number of houses in Local Government Areas to be considered for building society loans. As mentioned in the first paragraph of this section, houses constructed to date by the building societies to these new "minimum" standards have costed at least US\$8,000 (Z\$5,000) to US\$9,500 (Z\$6,000). As such, none of the housing types presently constructed by the Salisbury City Council nor IDSRA fall within the present minimal standards for a building society loan.

b. Private developers. Private sector development companies have, over the past several years, been involved in the development of housing schemes in the cost range of US\$6,400 (Z\$4,000) to US\$8,000 (Z\$5,000) or more. While these schemes constitute a housing solution affordable by only the wealthiest black families, it does illustrate the potential for private sector involvement in the low income sphere. In all cases, the housing produced met with the minimum Grade B building society

specifications. The maximum stand area was 325 square meters, while the houses themselves ranged upwards from 80 square meters.

Selection of applicants was based on eligibility for a building society loan. Minimum income requirements varied with the particular development, the lowest being Z\$250 per month. (As of June 1980, it is estimated that only 3.9 percent of Salisbury's black employees earned at least this income.) In addition, all applicants were normally required to place a 10 percent deposit and secure a government guarantee.

CHAPTER IV

INSTITUTIONAL SHELTER DELIVERY SYSTEM

A. LAND

Municipalities are the only local authorities which can own and acquire land, although they may only do so with Ministry approval. In the case of other local authorities, the Ministry of Local Government and Housing acquires land and holds it on behalf of the local authority. In these cases, the local authorities still act as agents of the Ministry in acquiring land.

State land is still available contiguous to urban centers in areas suitable for low cost housing. In these cases, it can be made available to the local authorities free of charge. In other cases, land must be purchased from private owners. Legislation exists which enables government to expropriate land at a fair market price, but prices are usually agreed upon without resorting to this process. Vacant land is in good supply in Zimbabwe, and its cost tends to be a relatively low percentage of the total cost of housing relative to other developing countries.

The local authorities are responsible for overall site surveys, individual plot surveys and the ultimate transfer of plots to homeowners. Land is generally costed into projects either at a nominal cost in cases where land is acquired free of charge or at the cost at which it is purchased from private land owners. In some more recent cases the cost of land and surveys is now paid for after the amortization of the house costs. This reduces the initial costs and constitutes a partial subsidy which is paid for from proceeds to the local authority's estates account from other land sales. In some cases, plots are only informally pegged out at the time of construction to reduce survey costs. Homeowners can pay for surveys and title transfer after their loans are amortized.

Most new housing is now being sold on lease purchase terms. At the end of the amortization period, land is deeded over to the homebuyer on a freehold basis.

Land which is set aside for commercial and industrial purposes is sold at its current market value. Achieving a surplus on land sales is considered to be a lesser objective than meeting a community's needs for various types of facilities. Land is generally provided to the appropriate ministry free of charge for schools and community facilities, but it is included in the land price charged to homeowners.

B. PUBLIC UTILITIES AND INFRASTRUCTURE

The provision of all public services in the urban areas of Zimbabwe is generally well developed. The responsibility for the provision and maintenance of facilities and equipment dealing with water supply, human waste disposal, refuse collection, etc. rests with the local council authorities. The Ministry of Local Government and Housing, in its capacity as oversight agency for the local councils, supervises the budgetary as well as the technical aspects in the supply of these services. The underlying principle in the provision of public services is that they must be self-supporting. The present section briefly describes the provision of the various public services, the cost recovery mechanisms for each service and the institutional relationships required in the provision of these services for low income housing schemes.

1. Water Supply

The development of the country's major water supply resources is the responsibility of the Ministry of Natural Resources and Water Development. The Ministry distributes the raw water supply to the local councils, who in the case of larger authorities purify it and sell it to the individual consumers. The local authorities maintain their own water supply divisions which, depending on the size of these entities, would also include a technical staff. The local councils undertake, either directly or through contractors, the installation of the water reticulation system.

In the case of the production of low income housing schemes, the local councils, or in extraordinary instances the Housing Services Development Branch (HSDB) of the Ministry of Local Government and Housing, undertake the entire site development through the use of local contractors. After completion of the scheme and inspection of the dwelling units, the contractor would turn the related services over to the local authority for future administration.

All costs associated with the provision of water are recovered. The local council would repay the cost of the provision of the bulk water supply to the Ministry of Water Development. This water cost, and the cost of off-site water reticulation, would be recovered by the local council from the consumer through the monthly service or supplementary charge. In Salisbury, the user pays US\$2.51 (Z\$1.57) for the first 13 cubic meters consumed and US\$0.19 (Z\$0.12) per cubic meter thereafter. The on-site water reticulation cost is recovered on an amortization basis at 8 percent for 25 years.

2. Human Waste Disposal

Most aspects concerned with the disposal of human waste are the responsibility of the local councils. Local codes require that human waste be collected by water-borne systems and treated at sewerage plants. Effluent quality and any local exemptions concerning sewerage treatment are regulated by the Ministry of Water Development. In Zimbabwe, sewerage treatment plants are usually of the activated sludge variety in the larger centers or some form of facultative pond system in the smaller centers.

Depending on the size and quality of local staff, sewerage treatment and reticulation design is either handled in-house or by consultants. Site development is generally undertaken by local contractors. Capital and recurrent costs are recovered in a similar fashion to the provision of water. Off-site reticulation and major treatment works are recovered through the monthly service charge, while on-site reticulation costs are amortized similarly to water.

3. Storm Drainage and Roads

The construction and maintenance of storm drainage and roads contained within the municipal boundaries are the responsibility of the local councils. The National Road Authority of the Ministry of Roads and Road Traffic, Posts and Telecommunications has the responsibility for all major roads, outside the municipal areas, linking urban areas, airports and major feeder roads serving the agricultural sector.¹ With respect to local council roads, the user service charge recuperates road construction costs not attributable to a particular housing development. On-site road and storm drainage costs are amortized as part of the dwelling unit at 8 percent for 25 years.

4. Refuse Collection

A good system of refuse collection exists for all urban residents. As is the case with the previously described public services, refuse collection is the responsibility of the local authorities. All costs, both capital and recurrent, are recovered as part of the monthly service or supplementary charge. None of the capital costs associated with refuse collection -- trucks and/or permanent receptacles -- are recovered through amortization.

¹ Local roads in rural areas are the responsibility of the rural councils.

5. Electricity

The Central African Power Company (CAPOC), a parastatal of the Ministry of Transport and Power, is responsible for most of the production of electricity in Zimbabwe. Zimbabwe's major source of electrical power presently comes from the Kariba hydroelectric generating plant located along the Zimbabwe-Zambia border. It is anticipated, however, that construction is to be completed by 1985 of the thermal power station at Wankie. This is an Electrical Supply Commission (ESC) project. This power station will supply sufficient power capacity for the nation until the year 2000. While CAPOC operates the country's major electrical grid system, the ESC is usually responsible for the national distribution of electricity. Salisbury and the other major municipalities are an exception to this rule in that they purchase electricity directly from CAPOC. CAPOC's generation costs are recuperated from the ESC or the major municipalities through a uniform tariff structure. The supply entities have the responsibility for the electrical reticulation and recover their costs through user tariffs. The internal dwelling unit reticulation is amortized along with the housing unit cost. The cost of public streetlighting is borne by the local councils and recovered as part of the monthly service charge.

6. Public Transportation

The public transportation network in Zimbabwe's urban areas is handled on strictly a franchise basis. The private sector ventures have adequately accommodated the increased demand from the rapidly expanding Local Government Areas. The Ministry of Roads, responsible for all aspects of bulk transport, licenses and regulates the franchised bus companies in rural areas. Councils hold direct franchise agreements with operators in larger urban areas. The Ministry requires that all bus lines provide comprehensive levels of service and approved rate structures. The Salisbury United Omnibus Company serves the Salisbury area, while the Zimbabwe Express Motorway Authority serves the rapidly developing local council of Chitungwiza.

C. OVERVIEW OF THE ZIMBABWE CONSTRUCTION SECTOR

1. Introduction

The construction industry in Zimbabwe is divided into the two major components of building and civil engineering. The former is concerned with all types of new building construction and the repair and maintenance of residential, commercial and industrial structures. The civil engineering sector involves activities that range from the construction of highways and drainage facilities, all major sanitary facilities, dams and

other major civil works to specialized engineering tasks such as drilling and mining. Many government, parastatal, private and informal entities play an important role in this process. Table 16 presents private and public sector investment in construction during the period 1964-1980. It can be seen that construction investment reached a peak in 1975 of US\$383.0 million (Z\$239.4 million), after which it fell in absolute terms.

The following sections present a general overview of the construction sector, and where data are available, focus on residential and in particular on low income residential construction.

a. Government regulation of construction industry.

Most GOZ ministries are involved in some phase of construction. A large proportion of the actual works, however, are undertaken by private contractors who carry out the construction in compliance with the ministries' own particular specifications and standards. For example, the Ministry of Water Development will oversee the construction of major water facilities; the Ministry of Roads is responsible for all national roads and airport construction; while the Ministry of Works is responsible for the construction of government buildings such as schools, hospitals, military installations and housing for government employees. With respect to higher density, low income housing schemes, the local councils and in special cases the Housing Services Development Branch, are responsible for their provision. Each of the above-mentioned ministries has its own classification and prequalifying procedures for private contractor participation.

The Ministry of Commerce and Industry regulates the import policy for building materials. In addition to the domestic building materials industry. Importation of building materials is handled through a general import license with an allocation for foreign exchange being granted for a limited time period.

The Ministry of Labor determines the minimum daily wage to be paid the trades which comprise the construction industry. It also establishes policy concerning adequate site working conditions. The Treasury and the Reserve Bank of Zimbabwe regulate local banking practices, the setting of interest rates and the negotiation of foreign loans.

b. Influence of construction sector on Zimbabwe's

economy. A recent article in Salisbury's daily newspaper, The Herald, claims that Zimbabwe's building industry is showing signs of a definite recovery in activity from one of the worst

¹ Business Herald Reporter (August 10, 1980), "Building Industry on Way up Again," The Herald, Salisbury, Zimbabwe.

TABLE 16

Construction Work Done by the Public and Private Sectors
Zimbabwe, 1964-1980

<u>YEAR</u>	<u>BUILDING</u>		<u>CIVIL ENGINEERING</u>		<u>Total Z\$ Million</u>
	<u>Z\$ Million</u>	<u>Percent of Yearly Total</u>	<u>Z\$ Million</u>	<u>Percent of Yearly Total</u>	
1964	20.8	35.7	37.4	64.3	58.2
1968	36.2	43.5	49.6	56.5	87.8
1970	59.6	52.0	55.0	48.0	114.7
1971	67.5	49.1	69.9	50.9	137.4
1972	78.5	48.8	79.1	50.2	157.6
1973	89.0	47.9	96.8	52.1	165.8
1974	102.6	46.3	119.1	53.7	221.7
1975	105.0	44.3	133.4	55.7	239.4
1976	89.7	43.1	118.3	56.9	208.0
1977	83.7	39.9	126.1	60.1	209.8
1978	67.2	35.5	121.9	64.5	189.1
1979	88.9	40.9	128.3	59.1	217.1
1980*	22.5	41.7	31.7	58.3	53.9

* Only includes first quarter of 1980.

SOURCE: CSO Supplement to the Monthly Digest of Statistics, July 1980.

recessions in its history. This is a positive sign since the construction sector's contribution to the Zimbabwe economy has generally declined since the early 1970's. Contribution to GDP reached a peak of 8.6 percent in 1973, but slumped to 3.1 percent by 1978. Residential construction as a percentage of gross fixed capital formation was 16.0 percent in 1970 compared with 10.0 percent in 1978. Residential construction as a portion of total construction has also slipped from a high of 26.0 percent in 1969 to a low of 16.8 percent in 1978.

Construction employment figures mirror the decline in importance of this industrial sector during the 1970's. Beginning in 1964 with 3.7 percent of total industrial employment, the construction sector proportion increased gradually to 6.2 percent in 1974. Every year thereafter, however, the percentage has decreased, falling to 4.1 percent in 1979. More disturbing still is the fact that total construction sector employment fell in absolute terms by more than 63,000 employees during the 1975-79 period.

2. Residential Construction Methods and Procedures

Presently in Zimbabwe, the local council is the prime regulator of residential construction (both formal and informal). Each council usually has a set of by-laws which specify requirements with respect to the design and construction of buildings and the related public services, fire protection and public safety precautions.

The local council building by-laws dictate a high standard of residential construction in Zimbabwe. These high building standards reflect the past influence of established British building codes and practices and the present requirements of local building societies, rather than a need to design for severe loading conditions brought on by earthquakes and/or high winds. With the exception of the present tender procedures of HDSB for its low income housing schemes, there has been little effort to modify existing building regulations by the introduction of performance standards for residential construction. It is generally agreed locally that performance standards would permit cost savings without sacrificing structural stability.

Given the stringent building by-law specifications, formal residential construction relies almost entirely on either fired clay brick or concrete block wall construction. Plastering is required on all interior wall faces. The roof system is usually constructed of framed timber trusses and covered with concrete tiles. The ground floor slab is of concrete and covered with permanent floor coverings such as vinyl, wood parquet, carpeting or quarry tile in all living areas. Bathrooms contain a built-in bathtub, a wash hand basin and toilet.

"Informal" residential construction, in that it is not undertaken by government, a private developer or an industrial employer, is still very much controlled by the local council building departments. All plans for new construction or additions must be approved by the local council before construction begins, and a series of local inspections must be complied with before a final certificate of occupancy is granted. These local building requirements tend to restrict informal construction to mainly the same building materials, methods and designs as found in the formal sector. An individual wishing to construct a new dwelling unit or expand an already existing one would either purchase a set of approved plans from the local authorities or hire an architect or experienced technician to draw up a set of plans. Once the plans were approved, the individual would hire a small contractor on either a labor only or a labor and materials basis. Given the local authority's strict building regulations and the individuals inability to take advantage of the bulk buying of materials, the dwelling unit produced informally is often more costly than the mass produced unit.

Only within the last two to three years, with the appearance of "approved" squatter settlements, have traditional materials such as unfired clay bricks and thatch roofs been permitted for informal construction. Government is still undecided if units constructed of traditional materials will be allowed to remain once these settlements are upgraded.

The private contracting sector is beginning to experiment with prefabricated building systems, especially with respect to GOZ's low income housing program. Government is more than willing to entertain the use of prefabricated systems as long as they meet its stringent minimum cost requirements. Government opines that the cost criterion will be met only by minimizing the cost of transporting the prefabricated system (i.e. on-site fabrication is preferred), by employing inexpensive local materials and by producing lightweight components which do not require heavy equipment for installation.

Skilled manpower shortages are affecting the ability of the construction industry to produce up to its capacity. Many building firms are having to import the necessary skills to carry out their operations. Electricians, plumbers, fitters and building foremen are among those in short supply, although the shortage of skills has affected all aspects of the industry.

The training of skilled craftsmen is seen as the most important aspect of the country's building industry. A new "meccano-type" concept of construction, recently introduced, would compensate to a certain extent for the present lack of skilled artisans.

The meccano-type concept involves the employment of a specialist in form work, whose work would compensate for between

10 and 20 journeymen. Building components are broken down into as many pieces as possible. They can, in turn, be assembled without having to rely on individual specialists. This concept compensates for certain structural skills, but does not help shortages in the mechanical and electrical fields.

3. Building Cost Components

In the Zimbabwe construction industry, the breakdown of costs among materials, labor and plant (including overhead and profit) varies considerably for the building and civil engineering sectors. Historically, the civil engineering sector breaks down into approximately 40 percent materials, 30 percent labor and about 30 percent plant including 6-10 percent profit and 4 percent overhead. On the other hand, the breakdown for the building sector is about 50 percent materials, 40 percent labor and about 10 percent profit.

The HDSB "standard" core house in the Chitungwiza low income housing scheme will be used as an example of the percentage cost of building components in this type of development. The foundation concrete, the floor slab, the internal partitions, and the blockwork for the foundation and superstructure account for the largest percentage of total unit cost. These four components represent about 40 percent of total building costs. Roof sheeting and timbers add approximately 13 percent to building costs, while the electrical and sanitary installations add another 25 percent. The finishings (paint, cement wash and lime wash, external doors and ironmongery, glazing, etc.) contribute a final 12 percent.

4. Building Materials

The great majority of the formal building materials used locally in residential construction -- cement, reinforcing bars, concrete and clay blocks, asbestos cement roofing, sanitary piping, metal windows and doors, floor coverings -- are produced domestically. The small percentage of building materials which is imported takes the form of semi-processed sheet metal or glass which later is manufactured into electrical or sanitary wares. The foreign exchange components of residential building materials varies from 2 to 5 percent.

The CSO prepares a quarterly price index for the building materials industry. Table 17 illustrates that after a period of gradual increases from 1964 to 1973, prices rose sharply in 1974 and have continued to increase by double digit rates to mid-1980. For the first six months of 1980, prices have already increased by 13.2 percent over the adjusted average for 1979. While prices of building materials have already increased significantly in 1980, it is still unclear what ripple effects the recent amendment to the minimum wage law will have on the building materials price index.

TABLE 17
Average Annual Building Materials
Price Index
(average 1964 = 100)

<u>YEAR</u>	<u>TOTAL MATERIALS</u> <u>INDEX</u>	<u>PERCENTAGE</u> <u>INCREASE</u>
1964	100.0	
1965	102.6	2.6
1966	106.3	3.6
1967	109.3	2.8
1968	112.6	3.0
1969	116.7	3.6
1970	121.8	4.2
1971	125.6	3.1
1972	129.8	4.2
1973	138.8	6.9
1974	161.5	16.4
1975	184.6	14.3
1976	204.9	11.0
1977	238.5	16.4
1978	263.9	10.6
1979	307.0	16.3
1980 (June)	347.5	13.2

SOURCE: Supplement to the Monthly Digest of
Statistics, C.S.O., July 1980.

5. Employment in the Construction Sector

The CSO collects on a quarterly basis employment data by industrial sector. This data for the construction sector during the period 1964 to 1979 presents a similar picture to the sector's contribution to the Zimbabwe economy over the same period. The number of employees working in the construction sector increased from 26,900 in 1964 to 64,300 in 1974. By 1979, however, this employment figure had fallen to 40,600. In percentage terms, construction employment increased by an average annual percentage of 9.9 percent until 1974. Since that year, construction employment has fallen by an average annual rate of 8.6 percent. It is possible that this decline in construction employment has bottomed out; the decrease in construction employment for 1979 was only 0.7 percent.

The Ministry of Labor and Social Services recently modified an existing 1976 Building Industry Employment Regulations Act dealing with minimum wages. The previous minimum wage law divided the country into four sectors where different minimum wages were applied to the various occupational grades. The new amendment increases the minimum wage in each grade at the same time it establishes a uniform countrywide wage scale for each grade. The new minimum wage amendment does not apply to independent contractors or contract workers. The evolution of the minimum wage rates by occupational grade is given in Table 18.

6. Organization of the Construction Sector

The Zimbabwe construction industry is characterized by a large number of contractors ranging in size from very large to very small. The largest firms are often local subsidiaries of foreign-owned firms. These large contractors would have both civil engineering and building divisions and would maintain large plants of heavy equipment. They usually would not have their own architectural and engineering design sections, but would have engineers and quantity surveyors for contract interpretation. At the other end of the spectrum are the small builders generally working on small additions or a few housing units at one time. These small firms are frequently run by master craftsmen who have acquired experience working for larger firms and have now gone into business for themselves. They are usually experienced in labor contracts, and might have access to a small line of credit in order to be also able to supply materials. They generally are inexperienced at bookkeeping and tendering and do not have the financial resources to maintain very extensive plants.

Each GOZ ministry which is involved with some aspect of construction would have its own prequalification and classification criteria for private contractors wishing to do

TABLE 18

Minimum Wage Rates by Occupational Grade

<u>GRADE</u>	<u>MINIMUM MONTHLY WAGE</u>		
	<u>Up to</u> <u>7-30-80</u> <u>(Z\$)</u>	<u>Up to</u> <u>12-30-80</u> <u>(Z\$)</u>	<u>After</u> <u>12-30-80</u> <u>(Z\$)</u>
1. Laborer	60.8	70.0	85.0
2. Supervisors of Grade 1 employees; operator of a sending machine or fork-lift; sheet-metal machine operator.	64.5	73.7	88.7
3. Concrete block laying; drywalling; truck driver; staff clerks.	75.5	84.7	99.7
4. Plastering; masonry and stonework; carpentry; painting; mosaic and walltilling.	86.6	95.8	110.8
5. Handyman	93.9	103.2	118.2
6. Glazier	110.5	119.7	134.7

SOURCE: PADCO Elaboration of OQZ information.

business with it in the areas of civil engineering, building and low income housing. While the prequalification criteria vary with the ministry, they generally contain most of the following items:

- Description of workshop and plant.
- Description of past contracts for which the firm has been fully responsible during the past five years.
- Bankers reference of financial resources.
- References from a registered architect or engineer.
- Registration with the National Industrial Council (NIC).
- Maximum value of work which firm is prepared to undertake (justified on the basis of evidence submitted to previous items).

The appropriate ministry will then examine each application on its own merit and decide if the firm is eligible for work and to which category -- setting the largest individual contract which can be undertaken -- the contractor will be placed. Illustrating this application process, the following table (Table 19) presents the prequalification categories used by the HSDB of the MLGH and the number of firms found in each category.

D. THE HOUSING FINANCE SYSTEM

1. Government-Sponsored Low Cost Housing Finance

Virtually all low cost housing in the urban areas of Zimbabwe is financed through local authority accounts. This financing comes from a variety of public and private sources.

The main source of financing for low income housing is the Local Government Areas Building Fund (LGABF). This fund is administered by the Ministry of Local Government and Housing. It receives loans appropriated in the budget by Parliament and borrowings from private institutions such as building societies and insurance companies. The Ministry authorizes advances from the fund to local authorities to finance housing and related services. The Fund charges an interest of 8 percent to the local authorities and it pays interest on its borrowings.

The fund presently pays 8 percent to insurance companies and 7-1/4 percent to the building societies which is the current building society rate for loans on houses costing less than US\$19,200 (Z\$12,000). Borrowings by the fund from private sector institutions must be approved by the Treasury. The fund is non-

TABLE 19

Contractors Registered with HSDR Ministry of
Local Government and Housing

<u>CIVIL ENGINEERING</u>			<u>BUILDING</u>		
<u>CONTRACTOR CATEGORY</u>	<u>MAXIMUM CONTRACT CAPACITY (Z\$ thousand)</u>	<u>NUMBER OF CONTRACTORS</u>	<u>CONTRACTOR CATEGORY</u>	<u>MAXIMUM CONTRACT CAPACITY (Z\$ thousand)</u>	<u>NUMBER OF CONTRACTORS</u>
CE/U	Unlimited	5	A	Unlimited	8
CE/A	Z\$500	25	B	Z\$1,000	20
CE/B	Z\$200	16	C	Z\$ 500	19
CE/C	Z\$100	29	D	Z\$ 200	24
CE/D	Z\$ 50	19	E	Z\$ 100	71
			F	Z\$ 50	73
			G	Z\$ 20	5

SOURCE: HSDB, Ministry of Local Government and Housing.

profit making. The costs of its administration are covered by the Ministry budget. Although it aims to break even, in recent years it has registered a slight deficit because it must draw down all its authorized borrowings from Treasury each year in order not to lose them. Although the fund is paying 8 percent on this money, it can only be invested in short-term, low interest securities until it is required by the local authorities.

All borrowing and lending for housing is subject to adjustable interest rate clauses. If the cost of money to the LGABF is raised or lowered, this can be passed on to the local authorities and ultimately to the homebuyers.

Local authorities also contribute some of their own resources for housing. The local authorities have a monopoly on the sale of African beer. Up to 50 percent of the profits from the beer enterprises may be allocated to local authorities' housing accounts. Until recently a services levy was collected from some employers by the local authorities and contributed to their housing accounts. Although no longer collected, these and other monies remain in local authority housing accounts and are constantly rolled over which adds to the annual level of local contribution for new housing construction.

The cities of Salisbury and Bulawayo are the only local authorities which are authorized to issue their own stock and to borrow from insurance companies and building societies on their own. However, as with borrowings by the LGABF, both the volume and the terms of individual city borrowings must be approved by Treasury. The city of Salisbury has been authorized to borrow US\$10.6 million (Z\$6.6 million) from building societies and insurance companies this year and it may issue US\$12.8 million (Z\$8 million) in stock. In addition, the city of Salisbury is borrowing US\$800,000 (Z\$500,000) from the LGABF to finance home extensions at Olen View. Generally, however, the city treasurer prefers to borrow from the open market where it can find somewhat less expensive terms than available from LGABF.

2. Cost Allocation and Recovery for Low Cost Housing

The allocation and recovery of the costs of low income housing and related services varies somewhat among local authorities. However, in all cases, the principle of full cost recovery is applied. In general, the following costs are charged in the basic house prices:

- Cost of the house (including interim finance charges).
- Immediate on-site roads.
- Surveys.

- Electric connection costs.
- Cost of land.

These costs are charged to the homeowners in a lease purchase agreement for eventual freehold title. They are amortized over 25 years at the prevailing rate of interest which is currently 8 percent. In some cases, the monthly cost to homeowners is reduced by charging for land and surveys only after the other house costs have been amortized. In Salisbury, this is only done in the case of the sale of previously rented houses.

There is also usually a service charge made to homeowners to cover the amortization of the following capital costs:

- Major roads to projects (in cases where the road cost is charged to local authorities).
- Sewer and water reticulation.
- Off-site water supply costs.
- Off-site sewerage treatment costs.

Presently, the service charge on the above costs is calculated for a specific local jurisdiction and is collected monthly from the homeowner.

In addition to the above charges, the local authorities make a "supplementary charge" which includes the cost of services, including the cost of solid waste removal, streetlighting and administration. Tariff charges for water and electricity are usually made separately. However, in some cases, some of the capital costs of water installation are recovered through the current water user charge. In these cases, the service charge is reduced accordingly.

Many of the types of charges made in the supplementary charge are made instead to the property tax based on valuation which is collected in the low density areas. However, in the Local Government Areas these are standard per plot charges which are based on plot size or property value.

A recent ministerial decision has eliminated the collection of downpayments for the sales of low income housing. This leaves homeowners with more savings for immediate home extension.

³ Service charges and supplementary charges are often referred to together which can be confusing.

3. Formal Sector Housing Finance

Building societies are largely middle and upper income oriented. Their largest contribution to low income housing is through the bulk loans which are made to the Local Government Areas Building Fund and in turn are loaned to local authorities to finance low cost housing and related services. At the end of 1979, the building societies had a balance of US\$25.6 million (Z\$16 million) outstanding in such loans to the LGABF and local authorities.

Building societies receive their funding through the sales of shares of various kinds and by accepting deposits. Interest on savings deposits is 3.5 percent per annum, but interest on fixed deposits and shares is higher, up to 6.25 percent.

The assets of the building societies at the end of 1978 amounted to US\$748.8 million (Z\$467.9 million). Of these, 67.6 percent were invested in mortgage loans. Most of the rest of the assets were in various types of investments, largely government stocks and bills. The societies have to maintain 20 percent of their assets in liquid assets (15 percent until recently). These are defined as government and municipal stocks with a maturity of not more than six years, treasury bills and bank acceptances.

Mortgage loans are usually limited to 75 percent of the cost or valuation of a property, whichever is lower. The following is the schedule of current interest rates:

- 7.25 percent for loans of under US\$10,000 (Z\$12,000).
- 7.75 percent for loans of over US\$10,000 (Z\$12,000).
- 8 percent for loans for non-owner occupied housing.

There are two government programs administered by the Ministry of Local Government and Housing to guaranty building society loans. Public service guarantees are made for certain members of the public service who borrow up to 100 percent of the value of a house. The guaranty remains in force until the debt is reduced to 70 percent of the valuation of a property.

Non-public service guarantees are made for properties costing less than US\$20,000 (Z\$13,000). If 10 percent deposits are made by purchasers, building societies may make loans for the remaining 90 percent of the property valuation. The Ministry of Local Government and Housing guarantees repayment on the first 20 percent.

There are several instances of private developments built in Local Government Areas on land serviced by local authorities or the MDGB. In these cases, long-term financing is provided by the building societies. However, there are few cases of such private

leading being provided for housing costing less than US\$9,600 (Z\$6,000). This is because the building societies must meet the minimum building specifications.

There are two levels of building specifications, Grades A and B. Grade B was drafted especially for construction in the Local Government Areas. Although it is lower than construction standards in low density areas. Grade B standard houses have cost at least US\$8,000 (Z\$5,000) to US\$9,600 (Z\$6,000). Thus, all of the low cost housing being built as part of the national low cost housing program through local authorities is below the minimum requirements of the building societies. The societies hesitate to go below Grade B because of their commitment to maintain sound assets and because they fear the higher administrative costs of servicing large numbers of small loans. This leaves an area in the housing market for houses costing less than US\$9,600 (Z\$6,000) which is not being met by private financial markets, but which is nevertheless relatively affluent compared to the principal target groups of the government's low cost housing program.

B. RURAL HOUSING

1. Traditional Housing

The following discussion on traditional rural housing is drawn heavily from F.P. du Toit's excellent essay "The Accommodation of Permanent Farm Labourers."⁴ The rural black population of Zimbabwe is located mainly on the Tribal Trust Lands and on the white-owned commercial farms. About 25 percent of the country's total black population lives and works on white farms. While there exist regional variations in traditional rural settlement patterns, a broadly typical pattern and architectural form of rural housing is found throughout the country.

a. The compound. Rural blacks generally reside in compounds which comprise a conglomeration of huts, poultry houses and small, irregular gardens. The compounds are usually located on low wet ground and connected with intertwining pathways. The need for security and privacy is clearly illustrated by the conventional arrangement of the individual living spaces. Although a compound may stretch for a considerable distance, each living space is a compactly grouped assembly of huts. Compounds

⁴ du Toit, F.P., "The Accommodation of Permanent Farm Labourers, Zimbabwe Agricultural Journal, Technical Bulletin No. 17, Salisbury, Zimbabwe, 1977.



Photo No. 107

AERIAL VIEW OF TWO SEPARATE RURAL COMPOUNDS

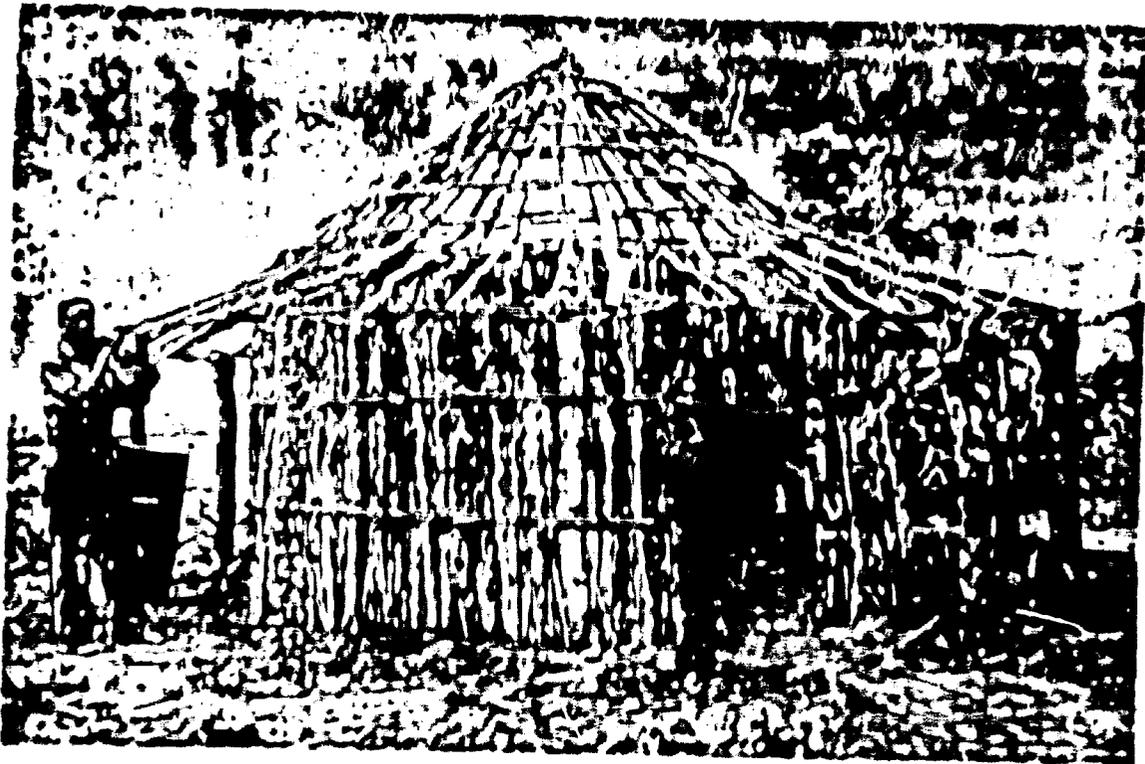


Photo No. 108

KITCHEN CONSTRUCTED OF BUSH-POLES

are usually composed of various families living in close proximity. Each family's living area normally includes three or four huts, with each grouping having a central cleared and beaten earth "courtyard." Three or four such groups of huts are normally found close together. This arrangement would indicate a neighborhood of related families or friends. A tree or large rock, within or at the edge of each neighborhood, often serves as a point of reference for the neighborhood's occupants.

Gardens, a gully or a stand of trees separate one neighborhood from another. A farm or council road would clearly divide one sector of the compound from the other.

b. Family living space. Each family's living space within a neighborhood is clearly demarcated. This definition is often achieved through a grass fence surrounding the family's group of huts. The fence is higher than eye-level, affording shelter from wind and privacy to the family. A gate in the fence emphasizes the separation between public and private ground. Within the fenced area, more subtly marked boundaries exist between areas where visitors are allowed and those to which only the family has access.

Variations occur in the layout of huts within the family's living space. Some groups will appear as a circle of huts around the courtyard, with the fence merely joining the outer walls of huts to complete the enclosure. Other living spaces will have an entire fence around free-standing huts. Risk of spreading fire is much reduced in the latter design and this is therefore favored, if fencing materials and adequate space is available. The use of the family living space and the huts contained within it normally take the following forms: an open space or entranceway; a hut near the entrance which serves as the kitchen; several huts for domestic use (sleeping, laundry-drying, storage, etc.); the garden; the poultry house; a washroom on the edge of the enclosure; and a site for defecation usually outside of the living area, but close to the compound, or on rare occasions, a pit latrine found within the living area.

c. Hut design and building materials. Traditional rural housing is generally constructed from whatever building materials the natural resources of a particular area have to offer: bush-poles, mud, dung (for flooring), thatching grass, bark-twine and clay.

The huts are traditionally round in plan, under a conical roof. The conical shape is preferred because it is relatively easy to construct a rigid structure, in that the structural stresses can be constrained by a circumferential tension-ring in the form of a bent lath securely bound around at the top of the wall.

Because of a general shortage of long, straight and durable bush-poles in the most heavily populated rural areas, huts are seldom of a large diameter. An internal diameter of three meters

or slightly more is a limiting factor to internal space, although the eaves may be extended on rafter sprockets which are supported at their ends by an outer ring of upright poles.

The eaves of about 1.5 meters width afford a shaded and sheltered verandah around the hut.

An important necessary element of the well-built hut is the raised plinth on which it stands. Although only some 100-200 millimeters above the surrounding ground and made of tamped earth -- possibly sealed with a slurry of clay or cement -- it deflects flood water around the building and aids in keeping the interior dry.

Floors are generally of compacted clay or just earth. On occasion, a floor with a dung surface is used. Dung provides a clean and comfortable surface.

Walls of pole-and-daga are made weather-tight by plastering the inside with a clay mortar. External plastering may cover the entire wall or just the part exposed to the elements. The best constructed huts are not only completely plastered, inside and out, but decorated with paint or various colors of clay-slurry in a variety of scenic, floral or geometric patterns. The element of the window is absent from hut architecture.

Wide eaves, as previously described, protect the exposed, external clay surface from weather erosion. The eaves protect the wall from saturation. Although not much thicker than 100-150 millimeters, the wall has remarkable insulating properties. The thatched roof, the lack of glazed openings in the walls, the small surface area that a cylindrical shape presents in relation to the volume it contains and the relatively small volume of the room itself, all add up to produce a unit suitable for all weather conditions.

The family's living space will be developed in stages. Initially, the family head along with the help of his family and friends will construct the bare essentials of a unit on a mutual-help basis. The family members will then carry on with improvements and additions to the basic building unit and, in turn, a fairly elaborate living environment can be established.

d. Compound services. The traditional rural resident generally does not have access to the public services provided in most of Zimbabwe's main centers. Compound residents normally rely on dams, open reservoirs, irrigation canals, streams or open wells for their water supply. Human waste disposal is accomplished through defecation in the bush close to the compound, or in a pit latrine located within the family's living space. Electricity is usually not available unless it can be tapped as part of the supply to a commercial farm. Schools and clinics are generally lacking.

2. Formal Rural Housing

In certain instances, formal farm-labor communities have been constructed on the large commercial farms. Some of this type of housing has tried to incorporate the building materials and design principles found in traditional housing (see du Toit's "Low Cost Houses for Farm Workers"), but generally materials and designs approximate low income housing constructed by the local council authorities in the main urban centers.

Whether constructed of formal or traditional materials and designs, farm communities constructed for the laborers are generally well served by water, sanitary and electrical facilities. Water is provided by a water-point, while individual pit latrines are provided for human waste disposal. The farm's electrical supply can be tapped for individual laborer consumption. Schools, health clinics and beer halls are by now virtually standard amenities for agricultural labor communities.

3. GOZ Rural Housing Programs

The Government of Zimbabwe is presently developing a multi-tiered program of rural service centers. Although only in the planning stage, it is envisaged that the program would upgrade certain existing rural trading centers, however small, by the provision of needed infrastructure and housing. The upgraded rural centers would then be in a more favorable position to better serve their surrounding hinterlands.

F. GENERAL ENVIRONMENTAL ACTIVITIES, ISSUES AND CONSIDERATIONS

1. Institutional Participants

The Department of Natural Resources working in conjunction with the Department of Physical Planning of the Ministry of Local Government and Housing are Zimbabwe's main environmental institutions. The investigative arm of the Department of Natural Resources is the Environmental Conservation Committee of the Natural Resources Board. This Committee was constituted in 1970. Its major functions can be summarized in the following manner:

- To monitor the environmental situation in terms of all kinds of pollution.
- To educate the public's conscience about environmental contamination and to obtain public support for effective anti-pollution measures.

- To monitor the character and effectiveness of environmental legislation with a view to dealing with the prevention of pollution.

The Regional, Town and Country Planning Act of 1976, in addition to authorizing the undertaking of regional plans, master plans and local plans, created the Department of Physical Planning. It is the responsibility of this Department to conserve and improve the physical environment and, in particular, to promote health, safety, order, amenity, convenience and general welfare, as well as efficiency and economy in the development process.

In addition to the two above-mentioned agencies, there exist various other entities which will have an influence on the environmental issues raised as a result of the proposed HG program. The following list briefly summarizes all those agencies involved in some aspect of the natural or man-made environment. (Annex 6 presents a sampling of relevant environmental laws.)

- Natural Resources

- Department of Natural Resources, Environmental Conservation Committee of the Natural Resources Board as provided for in the Natural Resources Act (latest revision, 1978).

- Pollution Control

- Noise pollution, legislation in the form of Factories and Works (General) Legislation No. 263 of 1976 puts limits on the level of industrial noise.

- Air pollution legislation promulgated under the Atmospheric Pollution Prevention Act of 1971 sets up the regulatory Air Pollution Advisory Board under the Ministry of Health. The Act covers pollution from chemicals, smoke, dust and smoke from internal combustion engines.

- Water pollution and sewage disposal. The Water Act of 1976 and two Supplementary Government Gazettes of 1974 and 1977 prescribe standards of effluent or wastewater from industries, sewage treatment works and oxidation ponds. The Ministry of Water Development is responsible for the control of water pollution, and it is advised by the Water Pollution Advisory Board.

- Pesticide pollution. The Hazardous Substance Act establishes four classes of pesticide toxicity. The Hazardous Substances Control Board regulates violations in the use of pesticides.

- **Land Use Planning, Control of Development and Preservation of Trees and Woodlands**
 - Department of Physical Planning of the Ministry of Local Government and Housing as provided for in the Regional, Town and Country Planning Act of 1976.
- **Infrastructure and Public Services**
 - Water supply, Ministry of Water Development (distribution of raw water) and local councils (purification and reticulation).
 - Human waste disposal, Ministry of Water Development (sets effluent quality) and local councils (reticulation and disposal of effluent).
 - Refuse collection, local councils.
 - Electricity, Central African Power Company (generation of electricity) and Electrical Supply Commission (distribution).

These various institutions and entities have to coordinate activities during all stages of higher density housing production in order that construction can progress smoothly at the same time that environmental aspects are taken into consideration.

2. Examination of Environmental Impacts

a. General issues. The following general environmental issues were identified during the initial shelter assessment as being of concern to a wide range of GOZ and local council authorities.

- **Natural Hazards**
 - Flooding during the rainy season.
- **Town Planning and Site Selection**
 - Suitability for higher density housing
 - i. Urban sprawl potential
 - ii. Topography
 - iii. Pollution control zone
 - iv. Airport noise control zone
 - v. Land preserves (national parks, catchment areas)
 - vi. Rock outcrops and soil classification
 - vii. Land ownership and use
 - viii. Access

-- Preservation of existing woodland

● Shelter/Infrastructure Design

-- Diversity of dwelling unit design and site plan

-- Provision of potable water and electricity

-- Sanitation and stormwater drainage systems

b. Critical concerns. In further in-depth discussions with MLGH and Salisbury City Council professionals responsible for the provision of low income, higher density housing schemes, the following issues were determined to be of a critical nature for the development of a HG program in Zimbabwe.

● Natural Hazards

Natural environmental hazards, such as cyclones, hurricanes or earthquakes, are not of major concern in Zimbabwe. The country's rainfall pattern does, however, result in some flooding during the rainy season. The Department of Physical Planning is authorized to approve specific sites for all higher density housing development. They should be consulted prior to site selection approval in order to avoid flood-prone areas. In addition to site selection, seasonally high intensity rainfalls will also influence the sizing of the stormwater drainage system to handle the runoff.

● Town Planning and Site Selection

(1) Suitability for higher density housing:

As the low income population of Zimbabwe's major centers continues to increase, land requirements for higher density housing will intensify. In order to avoid a rapid pollution of the environment due to new large population concentrations, carefully sited and planned housing schemes must be undertaken. A special Central and Local Government Sub-committee was set up under the Secretary of Local Government and Housing to establish criteria for the siting of higher density housing. The AID/PADCO team, working with the MLGH sub-committee's study, considered the following criteria and constraints to be most important in the evaluation of available land for this type of development.

Urban Sprawl Potential. Land proposed for higher density housing development should be sited within the existing urban fabric of the country's main centers, or at a minimum on the periphery of the built-up area in

order to take full advantage of existing infrastructural services physical and financial terms. Urban growth into entirely new regions, separated from the main body of the urban center, should be avoided for obvious reasons.

Rock Outcrops and Soil Classification. The Salisbury City Engineer's Department has identified two classifications to evaluate prospective higher density housing scheme sites with respect to: (1) the dominance of outcrops and hilly terrain which would tend to reduce the usable land area; and (2) soil fertility with a view to the soil's suitability for agricultural uses. The issue of whether good agricultural land will be used for low income housing schemes has, for the moment been resolved locally by the Chairman of the Natural Resources Board who has indicated that the sacrifice of good agricultural soils (high to medium fertility) for housing development is unfortunate, but preferable to the contamination of the country's water resources (i.e. the adequate disposal of effluent takes precedence over the retention of suitable soils for agriculture).

Land Ownership and State of Development. Present land ownership (state land, council land, Tribal Trust Lands, private ownership) and present land use (vacant, commercial agricultural use, small private holdings, etc.) relate directly to the value of the land to the ease of acquisition. Both factors are important constraints in the cost of acquiring and developing land for low income higher density housing purposes.

Access. Viewed in conjunction with the "urban sprawl potential" issue, the distance and ease of access of a prospective site for low income development to center city and/or the main industrial areas (and thus the associated transportation costs and/or travel time requirements) is of prime importance in that it is a factor affecting a poor household's ability to afford housing.

(ii) Preservation of existing woodlands:

The Regional, Town and Planning Act gives the local planning authorities control over the preservation of natural forests, trees and woodlands. The local planning authorities have the power to stop any person from cutting or, in any way, destroying any tree or woodland. In actuality, this process is very difficult to enforce given the fact that poorer households rely on the burning of charcoal as an inexpensive source of cooking fuel. In an attempt to circumvent the cutting of trees for firewood, all recent HDBS higher density

housing schemes have been developed with electrical connections to the individual stands. In addition, an inexpensive hot plate for cooking and heating water is being experimented with in the Chitungwiza Council Area outside of Salisbury.

3. Shelter/Infrastructure Design

a. Diversity of dwelling unit design and site plan.

Related to environmental concerns is the issue of the urban landscape. This factor has, as yet, not been influential in Zimbabwe in the design of higher density areas. Rather, small units are repeatedly sited in rows, with few higher buildings and little natural landscape to relieve the monotony.

It is envisaged that variety will be achieved where homeowners have the opportunity to complete their dwelling units. In addition, variety can be achieved where dwelling units are designed in clusters, rather than in row form. A more varied urban scene becomes possible by interchanging clusters of varying housing types. Other factors which would tend to humanize the physical landscape include the substitution of low pole lighting standards adjoining roads for the presently utilized light towers. Clumps of trees in private ownership have a chance of survival if individual electrical connections are provided. Additional variety can also come, over time, in high density areas if some road frontages are left for lower density, middle income development. In the short-term, site reserves for lower density uses can be used as vegetable plots.

b. Potable water and electricity. An important consideration in project feasibility is GOZ ability to provide bulk water and electrical supplies to any prospective site within acceptable cost levels. Potential site suitability is defined in the following way:

- Grade 1 -- existing infrastructure.
- Grade 2 -- extension of service feasible from existing infrastructure.
- Grade 3 -- area where new trunk facilities are required implying excessive costs.

It is generally accepted by GOZ that all potential sites for higher density housing development should be either Grade 1 or 2.

c. Sanitation and storm drainage systems. The GOZ is very concerned about pollution of the groundwater and natural waterways from both point and non-point sources. Increasing population and continuing urban development is contributing to water pollution. Strict wastewater quality standards from point sources have been established by GOZ. In order to meet these