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9. ABSTRACT

This is a summary of the proceedings on Housing In Africa, held in Nairobi, Kenya, in April 1976. The theme of the conference was providing housing for lower-income groups. Papers are presented on low cost housing, design of housing including site-and-service and squatter upgrading schemes, land availability and cost, technical innovations, and sources of funding. It was concluded that the enormous urban growth has raised many difficult problems and a logical approach to these problems would have to include: the creation of an organization or unit to develop a strategy, the development of the strategy for financing and building the housing and related facilities, training programs to develop capable people, and the development of demonstration projects. The Kenya Government feels that the concept of site and service schemes is the only pragmatic approach to providing shelter for the poor. This concept should allow for the standards of service and structures to be raised in line with improving incomes and standard of living. A corporate approach to housing must be considered including a fully comprehensive approach by governmental, local authority and non-governmental agencies. Earnest thought must be given to the need to encourage a community spirit among the plot holders. The consensus of the papers presented was that officially planned solutions which seek to meet low cost housing needs by orthodox conventional ideas are not likely to be successful.

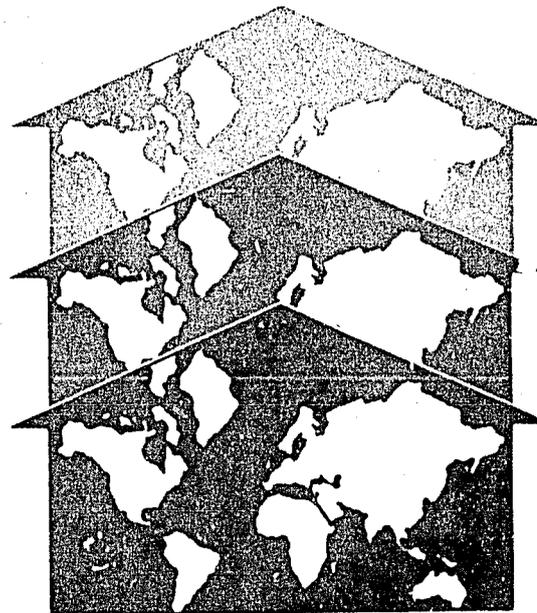
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**THIRD
CONFERENCE
ON HOUSING
IN AFRICA**

**NAIROBI, KENYA
APRIL 21-24, 1976**

**AGENCY
FOR
INTERNATIONAL
DEVELOPMENT**



OFFICE OF HOUSING

THIRD CONFERENCE
on
HOUSING IN AFRICA

Sponsor: United States Agency for
International Development (AID)

Hosts: Kenya National Housing Corporation
Ministry of Housing and Social Services
Nairobi City Council

April, 1976

THIRD CONFERENCE
on
HOUSING in AFRICA

NAIROBI, KENYA
April 21-24, 1976

The Third Conference on Housing in Africa sponsored by the United States Agency for International Development (AID) was held in Nairobi, Kenya. It was hosted by the Kenya National Housing Corporation, the Ministry of Housing and Social Services and the Nairobi City Council. The first Conference had been held in Abidjan, Ivory Coast, and the second Conference in Kinshasa, Zaire.

One hundred and six representatives from fourteen African countries, one Middle East country and four international agencies came to Nairobi for the conference, including forty-nine representatives from Kenyan organizations.

The main theme of the Conference was "Housing for Lower-Income Groups" with ten professional papers presented at six working sessions. They acted as a catalyst for much significant dialogue as was attested to in the country-by-country summary presentations at the close of the Conference.

The genuine enthusiasm and clear consensus as to the worthwhile results of the conference were very encouraging and have set the stage for future programs.

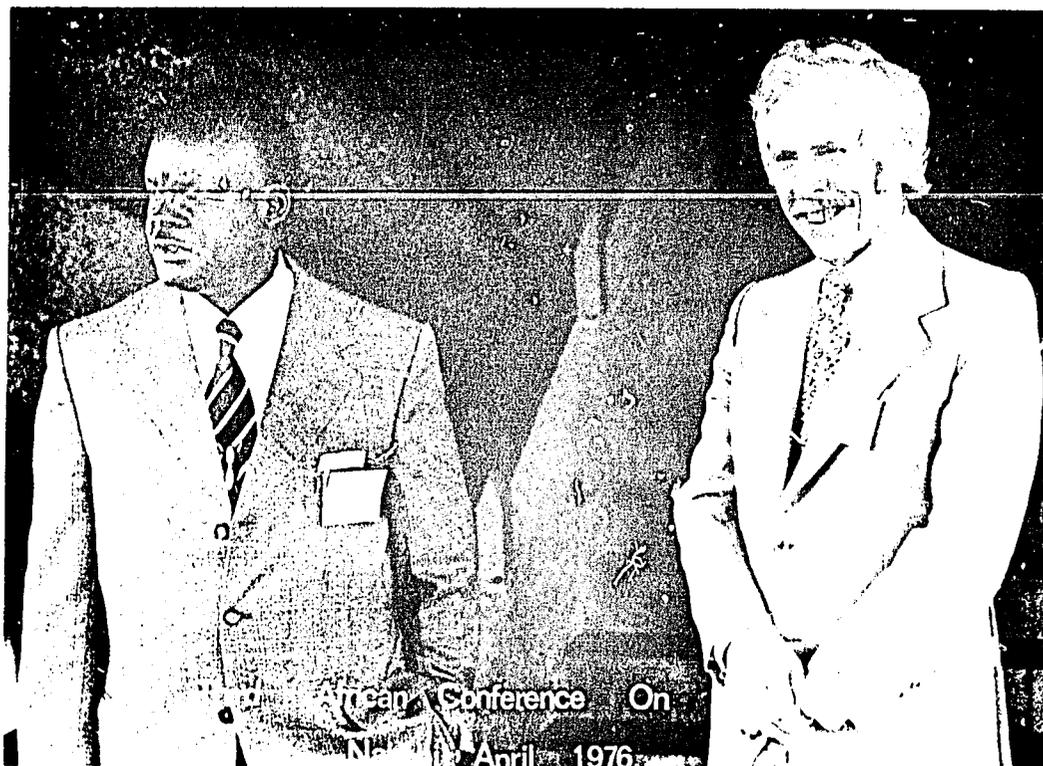
AID is pleased to have contributed its portion toward the success of the Conference knowing full well that the contributions of all are required to maintain the highly professional atmosphere and dialogue which was attained.

Peter Kimm, Director
Office of Housing
Agency for International Development
Washington, D.C.

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THE TEAM THAT MADE THE CONFERENCE POSSIBLE
 Mr. S. G. Ayany, Chairman, Conference Working Committee, General Manager, National Housing Corporation, Kenya. Mr. Peter Kimm, Chairman, Director, Office of Housing, AID, Washington, D.C.



THE OPENING SESSION
 Mr. Ayany introducing the Hon. Taaita Toweett, M.P. Minister for Housing and Social Services, who officially opened the Conference.
 Left to right: Mr. P. L. Rurumban, Mr. Peter Kimm, Hon. Taaita Toweett, Mr. S. G. Ayany, Hon. Anthony Marshall, Mr. John Mbogua, Mr. Charles Nelson, Dr. P. J. Odhiambo.

CONFERENCE PROGRAM

WEDNESDAY, APRIL 21

- 8:30 am REGISTRATION – KENYATTA CONFERENCE CENTER
- 9:30 am OPENING SESSION
Chairman: Mr. S. G. Ayany, General Manager, National Housing Corporation, Kenya
Hon. Taaita Toweett, M. P., Minister for Housing and Social Services, Kenya
Hon. Anthony Marshall, United States Ambassador to Kenya
Mr. Peter Kimm, Director, Office of Housing, Agency for International Development, Washington, D.C.
Mr. George Matheka, Permanent Secretary, Ministry of Housing, Kenya
Dr. P. J. Odhiambo, Assistant Minister of Housing and Social Services, Kenya
Mr. Charles Nelson, Mission Director, USAID/Kenya
- 11:30 am FIRST WORKING SESSION: Problem Definition and Conference Objective
Chairman: Mr. Peter Kimm, USAID/Washington, D.C.
Participants: Messrs. S. G. Ayany, Kenya
J. P. Mbogua, Kenya
A. Votaw, USAID/Ivory Coast
Delegation from Ghana
- 2:30 pm SECOND WORKING SESSION: Nairobi City Council Housing Development (Case Study) and Design of Housing Programme Including Site and Service and Squatter Upgrading
Chairman: Mr. Neal Goodson, USAID/Kenya
Participants: Messrs. J. P. Mbogua, Kenya
S. M. N. Rionge, Kenya
P. S. Gujral, Kenya
G. J. Njau, Kenya
M. Yusuf, Kenya
Z. K. Kariuki, Kenya
- 6:30 pm NATIONAL HOUSING CORPORATION RECEPTION – PANAFRIC HOTEL

THURSDAY, APRIL 22

- 9:00 am FIELD TRIP TO NAIROBI PROJECTS
- 2:30 pm THIRD WORKING SESSION: Design and Technical Aspects of Low-Cost Housing Projects
Chairman: Mr. Albert Votaw, USAID/Ivory Coast
Participants: Messrs. C. P. Katele, Zambia
J. Konan-Ferrand, Ivory Coast
- 6:30 pm USAID RECEPTION – KENYATTA CONFERENCE CENTRE

FRIDAY, APRIL 23

- 9:00 am FOURTH WORKING SESSION: Community Organization and Participation in Low-Cost Housing Projects
Chairman: Mr. Paul Campbell, USA
Participants: Messrs. P. A. Tarimo, Tanzania
B. Makobole, Botswana
D. Richardson, Botswana
- 2:30 pm FIFTH WORKING SESSION: United Nations and Low-Income Housing Programs
Chairman: Mr. Peter Kimm, USAID/Washington, D.C.
Participants: Messrs. Eric Carlson, UNEP (United Nations)
E. Paul Mwaluko, UNCHBP (United Nations)
- 4:00 pm Low-Cost Housing in the Kenya Context
Chairman: Mr. Neal Goodson, USAID/Kenya
Participant: Mr. G. M. Matheka, Kenya
- 6:30 pm NAIROBI CITY COUNCIL RECEPTION – CITY HALL

SATURDAY, APRIL 24

- 9:00 am **SIXTH WORKING SESSION: Program Funding and Housing Finance**
Chairman: Mr. Peter Kimm, USAID/Washington, D.C.
Participants: Messrs. James A. Christian, Ph.D., USA
George P. Cardis, USA
- 11:00 am Country Presentations
- 3:00 pm **CLOSING SESSION**
Messrs. G. K. Kariithi, Office of the President of Kenya
Joseph Githenji, Office of the President of Kenya
Peter Kimm, Director, Office of Housing, USAID/Washington, D.C.
S. G. Ayany, General Manager, National Housing Corporation, Kenya

OPENING SESSION

Chairman: Mr. S. G. Ayany, General Manager
National Housing Corporation, Kenya

OFFICIAL OPENING OF CONFERENCE BY THE HONORABLE TAAITA TOWEETT, M.P. MINISTER FOR HOUSING AND SOCIAL SERVICES.

Distinguished Guests, Ladies and Gentlemen.

1. I feel greatly honoured indeed to address you today on the opening of the Third USAID Conference on Housing in Africa. It is an honour to Kenya as a country, for all of you to have chosen Nairobi as a venue for this important meeting. We attach great importance to this meeting because matters of crucial significance on housing problems, not only in Kenya but throughout the whole continent, will be discussed and positive recommendations made which, if implemented, could improve the housing conditions for the vast majority of our urban population.
2. The two previous conferences held in Abidjan, Ivory Coast and Kinshasa, Zaire have provided the forum to review the seriousness of the problems on housing, and Nairobi is indeed very proud to be the venue for the continuation of this exchange of ideas and experiences. A working committee, composed of the Kenya National Housing Corporation, USAID representatives, the Nairobi City Council and the Ministry of Housing and Social Services, has handled details relating to the organization of the Conference with the USAID funding the whole operation. Delegations from over twenty African countries have been invited to the Conference with observers coming from interested organizations and governments all over the world.
3. My Ministry and, indeed, the whole Government of Kenya are pleased to note and put on record that this country has benefited greatly from USAID investment to the tune of K£6,800,000 (US\$15,000,000) to finance low-cost housing in Nairobi, and the remainder will go to other towns and municipalities throughout Kenya. In Nairobi, approximately 2,800 housing units will be constructed at an average cost of K£1,620 per unit. In the other areas, approximately 1,400 units will be constructed at an average cost of K£1,645 per unit. The completion of these USAID-assisted projects will go a long way towards alleviating the critical housing shortage facing this country, particularly in the overcrowded urban areas.
4. It is my sincere hope that during the next seven days or so, delegates will take time off to visit and see for themselves various low-cost housing projects in and around Nairobi including the USAID schemes. But, as I also look after social services in this country, I wish to advise all of you not to spend all your time in houses and indoors. Go out and view other aspects of our development including culture, wildlife, etc.
5. Looking more closely at the business of this Conference, I note that the theme of your discussions will be "Providing Shelter for the Poor" and within this theme papers will be presented and discussions made on the following:
 - (a) low-cost housing programme;
 - (b) design of housing programme including site-and-service and squatter upgrading schemes, etc;
 - (c) land availability and land cost, standards, collections, citizen participation, etc;
 - (d) technical innovations, sewer and water system, etc; and
 - (e) sources of funding.
6. I must say that I am particularly glad to see that the theme the organizers have chosen is one that gives adequate scope to cover all facets of the problems associated with providing shelter for the lower-income group of our urban population.

7. Ever since Kenya attained independence, it has been our policy to provide every citizen with good habitable shelter at a price he can afford, and though various constraints of financial, organizational or administrative nature may have prevented us from achieving as much in this direction as we would have desired, Kenya is nevertheless making steady and inexorable progress towards the achievement of this objective. To ensure that our limited funds are deployed in assisting those of our people who are least able to help themselves in acquiring satisfactory housing, all funds provided by our Development Estimates for public housing are reserved for units costing less than K£1,200 each. Those who aspire to own a house over this figure must seek any financial assistance they require from non-government or quasi-governmental agencies such as the Housing Finance Company of Kenya, the East African Building Society or the Commercial Banks.

8. I am pleased and encouraged to note that you will be debating the merits of site and service schemes and the upgrading of unauthorized settlements, as the Kenya Government attaches great importance to both these approaches as a means of slowing its low-cost housing problems. Experience in the rehabilitation and resettlements of squatter communities in many parts of the world has caused many people who are concerned with the housing process, such as the delegates gathered here today, to reappraise their thinking on the merits or otherwise of wholesale demolition and mass-resettlement elsewhere. It has been found that in many instances this practice has given rise to myriads of problems, particularly of a sociological character.

9. There is, in consequence, a growing consensus of opinion among housing planners that we should give far more thought to the possibilities of upgrading these existing squatter areas, and thus avoid the upheaval of established communities and the disturbance to their social well-being which is inevitably created by removal from their accustomed surroundings. You will be interested to learn that a study of these very problems is currently underway in Kenya in the three major towns of Nairobi, Mombasa and Kisumu, the findings of which we hope will give us a clearer insight of the options available to us.

10. I also observe that there will be papers and discussions on technical innovations. This is a very important subject, of special relevance to the provision of shelter for the poor, and one which is of very great concern to us in Kenya. The very high cost of providing services such as sewerage, water supply and roads has prompted us to give considerable attention to this problem, and my Ministry has been instrumental in obtaining the services of a material engineer and a service engineer for the Housing Research and Development Unit of Nairobi University charged with the task of investigating how these costs can be reduced, both for the services, and the structure of the house itself. When I tell you that the cost of physical infrastructure to our housing estates can be as much as a third to a half of the total cost, you will appreciate that here is a field of research that demands our utmost attention.

11. Finally, I would highly commend you for giving time to exploring sources of funds. In the absence of subsidies, the funds which our Government is able to make available for low-cost housing has to be on-lent to the Local Authorities at 5-1/2% interest over 20 years for tenant purchase, and 40 years for rental housing. When the other on-costs to cover administration charges, maintenance, rent-voids, etc. have been added, it results in a charge to the occupant of 11-1/2% or more. As we endeavour to cater to specific income groups in the planning and allocation of our housing, it is obvious that this financial burden detracts from the size and quality of the housing unit that can be provided for any given income group.

12. Any recommendations or resolutions that the Conference can evolve that would offer viable and practical means to alleviate this situation, by identifying sources of funds that would be available on easier terms, would be extremely significant and welcome not only to Kenya but also, I am sure, to many of those other countries represented here today. I trust that the recommendations to emerge from this Conference will prove useful to your respective countries. Many a time such recommendations tend to fall by the wayside only to appear among our archival

collections even before they are studied and implemented by those concerned. Let this not be the case with the outcome of this important Conference.

13. Lastly, it is my duty at this juncture to extend once more a hearty welcome to all the delegates and others who are attending this Conference and to hope that they will have fruitful discussions and a very enjoyable stay in Kenya. And to those who speak French and are here for the first time, please remember this:

Il est evident que a Kenya et a Nairobi il y a beaucoup des choses pour les visiteurs. Nous donnons quelquechoses mais vous devez chercher les autres choses vous-mem.

With these few remarks, Ladies and Gentlemen, the Third USAID Conference on Housing in Africa is declared open.

Thank you all.

ADDRESS BY THE AMBASSADOR OF THE UNITED STATES OF AMERICA TO KENYA, HON. ANTHONY D. MARSHALL.

Yeraltishir means underground city in Turkish. Let me take you, for a moment to Cappadocia, in the center of Turkey, to two underground cities, Kaymakli and Derinkuyu. While there are several entrances in Kaymakli, the one currently used is on the upper slope of a rocky mound. Because of the rock formation, the entrances are well concealed. Kaymakli was fashioned out of the earth in mole-style by early Christians (200-400 A.D.) who were escaping from the Byzantines. It is believed to have had seven levels (floors). The tunnels (streets) and rooms (houses) have been cleared to the fourth level and electric lighting installed. Frequently one can see from one level to another. There are rooms for the various activities of a family on each level. One room is quite distinguishable as a church, with crosses on the walls, an altar hollowed out of the rock, and a slab centrally located which was probably used for prayer. Niches in the walls of the streets and houses are darkened from burning oil. A storage area on the fourth level, adjacent to an intercity tunnel, is clearly defined by marks on the wall where the wine urns stood and by fragments of pottery. In another storage area wine was made and grain kept. There are graves, bedrooms, and kitchens. Bones from most graves have been removed. The bedrooms contain special sleeping quarters: rectangular holes in the wall, several feet above the floor. The entrance to one kitchen contains a large granite door. Stones where animals were slaughtered, and fireplaces for cooking are quite distinguishable. Air shafts are still in working condition; except for some of the tunnels, which require bending or even duck-walking, one has no sense of claustrophobia nor a lack of air. If one throws a lit newspaper into a ventilation shaft, as I did, it disappears in flaming fury, swishing to the bottom of the pit, far below. There are also wells with water still in them. The passageways and entrances have doors (five foot or larger circular slabs which are rolled into position, sealing off the passage).

There is a nine-kilometer passageway from Kaymakli to the neighboring underground city of Derinkuyu.

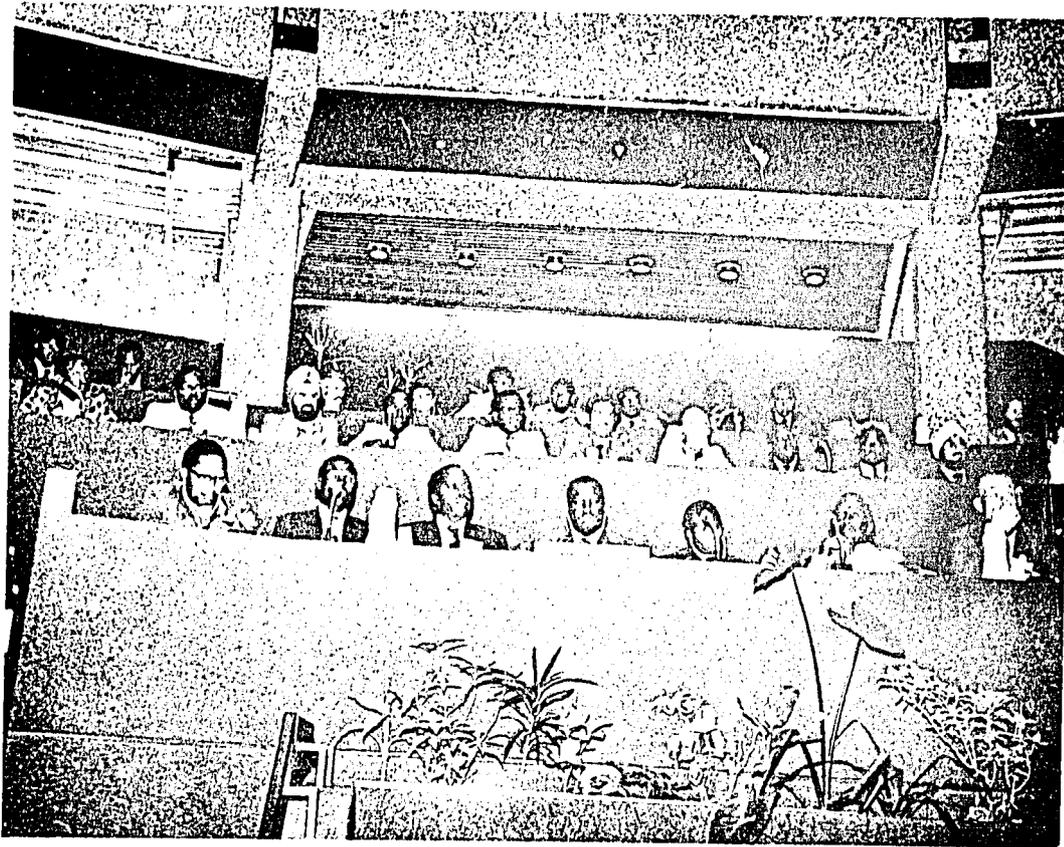
Derinkuyu, although also an underground city, is quite different from Kaymakli. The most important fact is that it is believed to date from the 8th or 9th Century B.C. There are eleven known levels, although the rubble of the ages has been cleared only to the seventh level. There are said to be 50 airshafts for the city, each about 100 meters deep. Most have been covered above ground, but can be easily identified. One is of particular interest as it is believed to date from the Hittites. A peculiarity of the wells at Derinkuyu is that some – I saw one on the seventh level – *start* underground, with no access at the surface, thus protecting the inhabitants from having their water poisoned during a period of siege. It is believed that as many as 50,000 people lived in Derinkuyu.

Kaymakli and Derinkuyu were urban communities. Lifestyle was basic, requirements simple, essential, utilitarian. We must accommodate for all needs, and the fulfillment of one segment of the population's needs very much affects that of another.

We still look for the modest, basic and functional to meet the needs of growing urban populations, *and* the all-important cost factor must be considered as well.

Your group meets here today to concentrate on housing for lower-income groups with an emphasis on program design, technological innovations and implementation problems. The task is formidable to shelter the world's people.

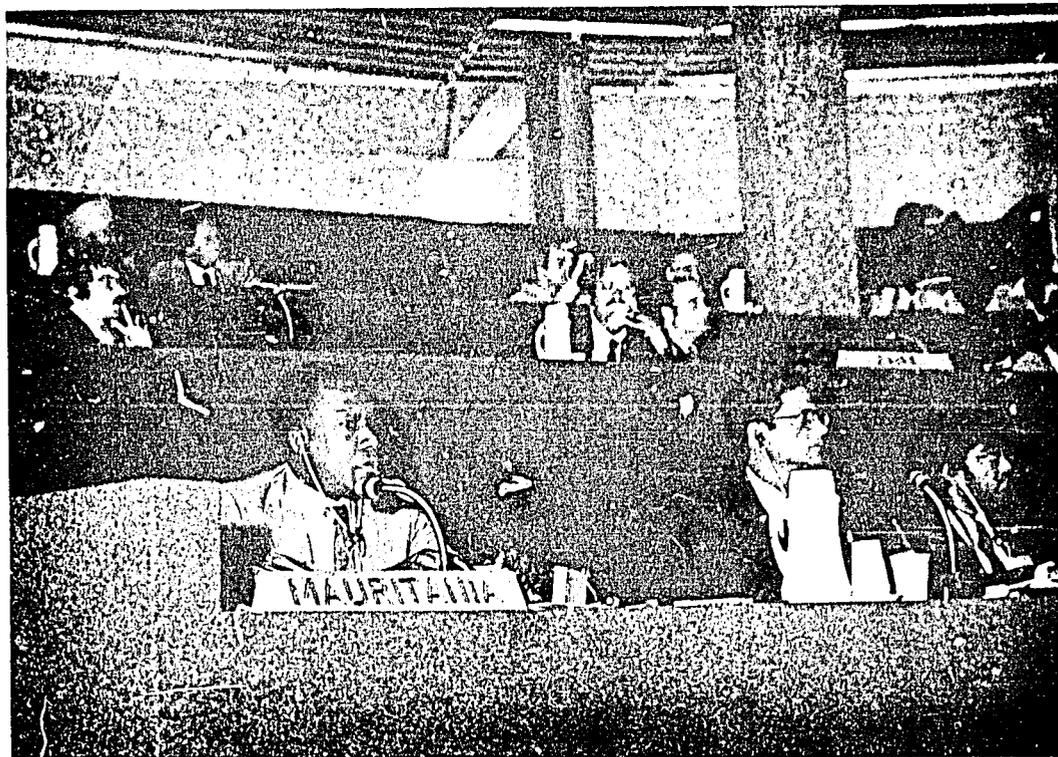
In opening this, the Third Conference on Housing in Africa, I wish you innovative design thinking, cost-analysis inspiration, and success in your meetings.



THE OPENING SESSION
Some of the delegates at the magnificent Kenyatta Conference Centre.



MORE DELEGATES AT THE OPENING SESSION



SUMMARY OF REMARKS BY PETER KIMM, DIRECTOR, OFFICE OF HOUSING, AGENCY FOR INTERNATIONAL DEVELOPMENT, WASHINGTON, D.C.

It is my pleasure to welcome you to the Third Conference on Housing in Africa sponsored by the Office of Housing of the Agency for International Development. It is a particular honor to speak to you in this beautiful city and in this spectacular Kenyatta Conference Center. The theme of this year's conference, "Housing for Lower-Income Groups," is of particular importance to AID since the final beneficiaries of all U.S. foreign assistance must be the lower-income groups.

In the early years of the Housing Guaranty (HG) program, our principal focus was on the development of housing-finance institutions. In 1973, the entire AID foreign assistance act was given a complete review to determine who were the principal beneficiaries of our foreign aid programs. The guidelines that resulted from that critical congressional review were quite clear with explicit instructions to AID that the final beneficiaries of the U.S. foreign assistance program must be the lower-income people, the rural and urban poor, in the recipient developing countries.

In applying that mandate to the HG program, one of our early efforts was an attempt to identify low-income groups. In so doing, we adopted a very arbitrary standard that families below the median-income levels constituted the urban poor and that all HG programs must be aimed at that level. In applying this criteria for the past two years, we have found that the median income from city to city has been surprisingly close. It runs about US\$100 to US\$150 per month, or about US\$1,200 to US\$1,800 per year. Using the old formula of 2 to 3 times annual income as the maximum debt that one can incur for a mortgage, a median income would allow the purchase of a home costing around US\$2,000 to US\$4,500. The average income of an African family of about US\$100 per month would allow the amortization of a mortgage of around US\$2,500 to US\$3,000. And, we are talking about trying to reach as many people as possible *below* that median-income level.

This analysis, coupled with the staggering population growth rates in the cities of the world, particularly the cities of the developing world, present challenges that are unparalleled. In Africa, most capital city growth rates vary between 5 and 10% per year resulting in a doubling of the population in about 15 years. The concept of providing 2 times the number of homes, jobs and schools in just 15 years is difficult to comprehend, but these are the harsh facts. These are not problems that can be dealt with by using the same old solutions that have been used elsewhere. Nobody has ever coped with the problems of the same order of magnitude that face us today, and there is nowhere to turn for experience.

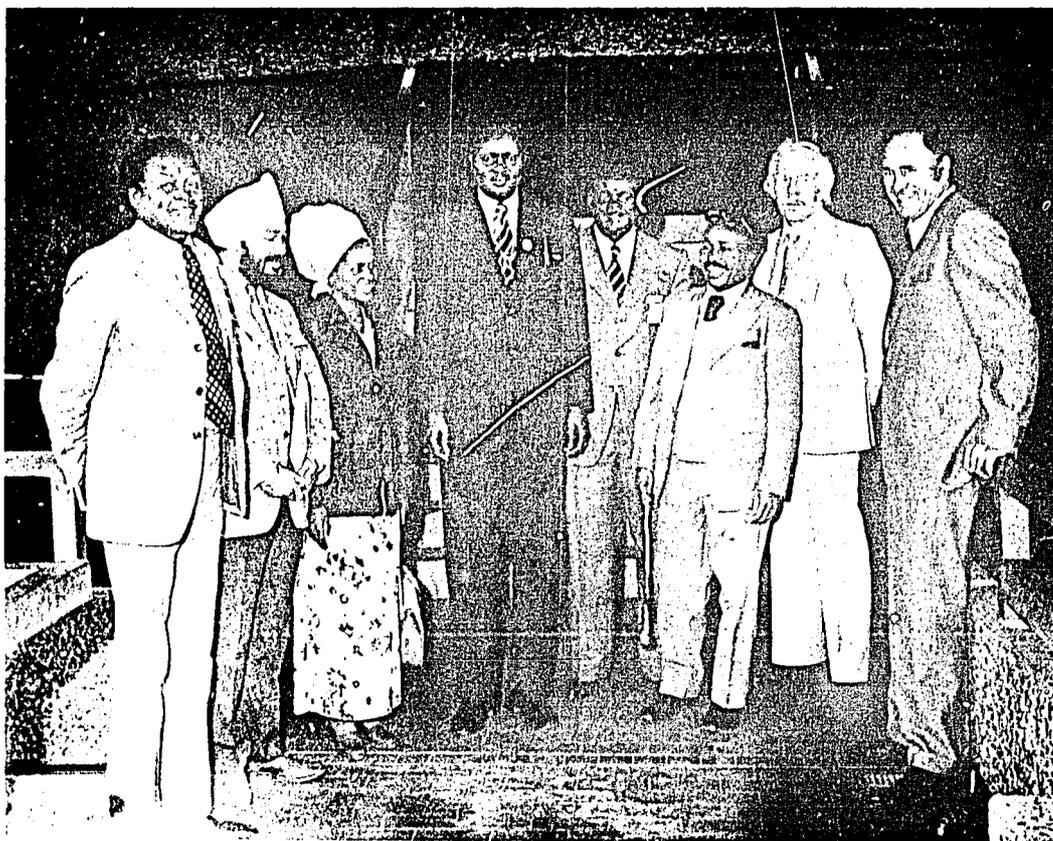
One of the critical needs of this urbanization cycle is housing. For most people, a house is the principal goal in savings for their life, and for all but the very wealthy, an investment in a home will be the major component of the net worth of an individual in his lifetime. Yet, somehow despite these well-known facts, shelter and human settlement problems have received a very low priority in the development community. National planning programs of many developing countries have paid little attention to housing strategy in their development efforts, and the problems increase.

It is interesting to note how the cities were able to cope with this growth and how the housing was provided. It was because the needed housing was constructed by individuals seeking their own interests. These people are now living in housing that others call shacks, slums, squatter areas, yet those housing units are a major source of housing for a very significant percentage of the people in the developing world. One of the programs we have found that responds to the urban poor is to finance the improvement of the slums and squatter areas, in particular, by providing better access, water, sewage facilities, credit for home improvements, and other community facilities that help to improve the quality of life. Another HG program is sites and services -- which, in a sense, tries to get the government one step ahead of the squatter movement by providing sites and infrastructure to provide individuals a place to build their homes. These programs, along with a limited amount

of traditional public housing that meet the lower-income criteria, are the types of programs that are financed with HG loans and which meet the policy guidelines set out in 1973.

I would propose that there are 3 major issues that need to be discussed at this conference. First, there is the question of housing policy. Few countries in the world, and I do not exclude my own, have well thought out housing policies, and I see little chance for successful housing programs unless urbanization strategies are well thought out and policies clearly established within which each country or city can operate. Second, the creation of permanent institutions to do the job – including the development of credit institutions that will serve the needs of the urban poor. Third, there is the need to create specific demonstration projects, particularly in sites and services and squatter upgrading projects.

These are the issues that I feel will need thoughtful analysis and answers. Each country has to make its own decisions, since nobody can make them for you. But before the decisions can be made, it is necessary to get all the information possible, study the situation and reflect upon the consequences of the decisions. In that respect, we sincerely hope that the discussions and exchange of ideas that come out of this conference will help.



AFTER THE OPENING SESSION

Left to right: Mr. George Matheka, Mr. B. S. Rihal, Dr. P. J. Odhiambo, Mr. P. L. Rurumban, Mr. S. A. Ayany, Hon. Taaita Toweett, Mr. Peter Kimm, Mr. W. Neal Goodson.

FIRST WORKING SESSION

Chairman: Peter Kimm, USAID/Washington, D.C.

Participants: S. G. Ayany, Kenya
J. Mbogua, Kenya
A. Votaw, USAID/Ivory Coast
Delegation from Ghana

DEFINITION OF THE PROBLEM AND OBJECTIVES OF THE CONFERENCE

(Summary of Remarks by Peter Kimm, Director, Office of Housing, Agency of International Development, Washington, D.C.)

Peter Kimm opened the session by briefly describing the problem of housing and the role of AID. He outlined the objectives of the Conference as addressing itself to the problem of housing the low-income groups. The problem is further complicated by the fact that in Africa, the capital city growth rate varies between 5 and 10% per year, whereby population will double in about 15 years.

The average income of an African family is about US\$100 per month and therefore could only amortize approximately a US\$2500-US\$3000 investment for a home.

Mr. Kimm blocked out three areas or themes which required specific attention:

1. Formulation of a Housing Policy
2. Creation of permanent institutions to do the job
3. Specific demonstration projects

PROBLEMS OF HOUSING DEVELOPMENTS

(Summary of Remarks by Albert Votaw, Regional Housing Officer, USAID/Ivory Coast)

Mr. Votaw described two basic problems of housing developments, namely cost and design. He also outlined several restrictions or constraints to low-income housing, one being that sites and services programs are not dramatic or attractive visually and hence do not excite the public relations consciousness of many politicians.

He also pointed out the constraint that most areas do not even have an adequate housing program for people earning more than the medium income.

Mr. Votaw mentioned another restriction being the problem of managing low-income housing programs, especially in the area of collections.

He then referred to some specific examples where official policies must change, and not people. One city which is officially about 75% squatter, and has been in existence for many years, has a grid layout with streets, alleys and stores. However, officially these areas are not recognized.

Another example referred to is where a vacant swamp site for future stadium use has since been improved by squatters, filling the swamp by hand with up to one meter of fill. It is now the home of 50,000 people, but is still carried on the municipal maps and documents as illegal and nonexistent.

HOUSING FOR LOWER-INCOME GROUPS

Presentation of Technical Paper by Delegation from Ghana

Introduction

Shelter is one of the basic necessities of life. For that reason, the Government of Ghana accepts responsibility for the provision of adequate housing in decent human settlements to satisfy not only the physical and biological requirements of man but also to uphold his dignity and improve the quality of his life. The acceptance of this basic philosophy was necessitated by a realization by the Government that certain groups of people were unable to provide adequate and decent housing for their families and themselves. Accordingly, Government intervention has been necessary to arrest a deteriorating situation. It is, therefore, not surprising that the five-year (1975-1980) development plan which has just been prepared by our Government gives a very high priority to housing over other sectors of the economy. Our programmes for housing, whether in town or village, cover the totality of the human community, and adequate consideration is given to the social, material, organizational and cultural elements that sustain the human community. These elements include the physical requirements of dwelling units, work places and other community facilities such as water and electricity. This paper will, therefore, attempt to define the housing problems and then proceed to discuss the Ghanaian experience as well as plans being evolved to improve the housing situation for the low-income groups.

Definition of the Problem

The housing problem in Ghana built up over several years of neglect. The earlier colonial administrators did not accept housing as a function of the Government. It was only in times of disaster (such as the occurrence of flooding or earthquake) that the colonial Government undertook the responsibility of coming to the aid of the victims. As a result, a majority of the low-income groups in Ghana have lived in slum areas, in squatter settlements and in the rural areas where the provision of infrastructure and community facilities are inadequate. Some of the basic factors contributing to the housing problems are: firstly, an average low per capita income of the population, vis-a-vis the existing high cost of construction materials and the rising expectation of the people; secondly, the rapid growth of the population, and the rate of migration which introduce structural changes in population and the settlement pattern. An analysis of these factors is, therefore, relevant for an appraisal of some of the programmes which have been initiated for improving the housing situation in Ghana.

Population Growth

Between 1960 and 1970, the total population of Ghana increased from 6.7 million to 8.5 million people, i.e. a 27% increase. An outstanding characteristic of the population of Ghana is its youthfulness. While this indicates a high dependency ratio, its impact on the housing situation indicates that this dependent age group would in no time reach the marriageable age group and would require houses of their own. The housing stock would, therefore, need to increase in a corresponding ratio within the next decade if existing standards for housing are at least to be maintained. Family planning programmes therefore help in controlling the volume of demand for new housing. However, this volume of demand for new housing can be effectively controlled when in addition to family planning there is less movement of the population from one locality to another.

Migration

In Ghana, like other developing countries, modernization has concentrated job opportunities (apart from farming) in a few urban areas. The economic attraction which these urban centres offer, coupled with the attendant provision of complex social facilities has created problems of

rural depopulation and ... a large section of the population to these few urban centres. In 1960, it was estimated that about 23% of the population in Ghana was living in urban areas and the remaining 77% in rural areas. It was further estimated that the occupancy rate was better in the rural areas than in the urban centres. Since these estimates were made, urbanization in the country has been proceeding at such a rapid pace that by 1970, the proportion of urban dwellers had increased to about 29% of the population. From the existing trends, it is now estimated that by 1980, the proportion of urban dwellers would increase to about 36% of the total population. The problems associated with such a rapid pace of urbanization centre around the creation of an excessive demand for housing in the few urban centres to which migrants are attracted. This lack of adequate housing tends to resolve itself physically by the poor migrating into the slum areas of cities. Slum areas, therefore, tend to be the natural response to the requirement of shelter by lower-income families, and although these areas frequently lack many urban amenities and living conditions, resulting in housing quality being often very unsatisfactory, slum areas provide living space for the urban poor and at a price which they are able to pay.

Closely related to the slum problem is the number of people in the low-income group living in squatter settlements and in villages. A majority of buildings in these areas are poorly designed and ill constructed, and the environments in many instances lack the basic infrastructure and community facilities necessary for decent living.

With a Gross Domestic Product of about US\$2,500 million and an average per capita income of US\$270 in 1976, it is conclusive that a majority of Ghanaians earn less than US\$1,500 per annum, are within the low-income groups and live under the conditions described above. This state of affairs places strains on the ability of the Government to provide adequate housing for the low-income groups in the face of rising costs of building materials.

From the above analysis, it is conclusive that various programmes such as family planning, to control the rate of growth of the population, and rural development programmes, to slow down the tempo of migration to the urban areas, can all have indirect impact in improving the housing situation. Consequently, the impact of family planning and rural development in improving the housing situation in Ghana needs to be discussed. However, since about 70% of the population in Ghana lives in the rural areas any meaningful evaluation of the housing programmes should commence with rural housing.

Rural Housing

The creation of the Department of Rural Development in 1971 is seen as a move to correct the imbalance in development existing between the urban and rural areas. The Government aims at providing good schools, health facilities, creation of job openings and other social amenities in the rural areas to improve the lot of the rural folk in order to check migration to the urban areas. This Department undertakes projects for the rural communities on a self-help basis, offering technical advice for projects not financed by the Department. It has succeeded in introducing cooperative housing into the rural areas and has built houses at a cost of about US\$2,000 each under its pilot low-cost housing scheme. It now organises pre-membership education on housing cooperatives and supervises the running of approved societies. In all these schemes the Department provides technical know-how and free machinery and encourages the use of local materials for construction purposes.

Roof Loan Scheme

In addition to the above schemes, the Department assists in mobilizing the efforts of rural folk who have traditional skills to build up to roof level and to apply for Government assistance in roofing the houses. The records show that 2,000 societies have been assisted to roof their buildings

at a total cost of US\$1.6 million and that an average total of about 30,000 houses are built with various materials in the rural areas year by year.

Low-Cost Housing

So great is the desire to improve living conditions that in addition to the activities of the Department for Rural Development, one of the first actions taken by the Government of Ghana which came to power in January, 1972, was to improve low-income housing by initiating a crash programme with an amount of US\$10 million for constructing low-cost houses within the range of US\$4,000 each. These low-cost houses were all located in rural areas inhabited by the low-income communities in the country. Altogether a total of about 970 houses were built in the first year and another 2,750 houses in the second phase in all the regions of the country.

It is important to remark that during the period under review, water supply facilities in the country increased by about 33% and electricity supply by 43%. There were similar expansions of the health and education services as well as the establishment of small cottage industries (such as the processing of palm oil) among the rural community of the country.

It is the conviction of my Government that low-income housing in the rural areas should be considered as an entire environmental improvement exercise and a means for providing additional avenues for economic activities, such as the agricultural revolution being undertaken in the country.

So far the discussion has outlined plans for controlling firstly the rate of growth of the population and secondly the rate of migration from the rural to the urban areas. These twin factors were identified as introducing structural changes into the population pattern and aggravating the housing situation. It is considered, therefore, that a long-term improvement to the housing situation for the low-income groups should not overlook family planning and rural development.

At the same time that attempts are being made to improve living conditions in the rural areas to stabilise the population, more ambitious housing schemes are being undertaken in the urban areas to ameliorate the living conditions of the migrants. As such, some attention will be devoted to an examination of the functions of those state institutions which are responsible for housing the low-income groups.

Urban Housing

In Ghana, urban housing for the low-income groups is mainly undertaken by the two main state institutions which have been actively involved in housing the people. These are the State Housing Corporation and the Tema Development Corporation which have been constructing rental units usually subsidized by the Government. The house-types range from four-story walk-up flats to one-story row housing. In addition to these state organisations, Government and many business houses provide subsidized accommodation for their employees.

State Housing Corporation

The Government of Ghana's responsibility for providing houses for the people is implemented primarily by the State Housing Corporation. This Corporation was established with the object of increasing the availability of dwelling houses in Ghana.

Presently, the Corporation manages over 20,000 modern houses of all types in all the regional and district capitals. Of this number, over 10,000 are rental units. This is so, because it has been the Corporation's policy that people in the lower-income group, who constitute a greater percentage of the working population of the nation and cannot conveniently own or house themselves, should

also be accommodated. The Corporation has as a result been charging a rent of US\$5.00 a month for a room unit and US\$10.00 a month for a double unit in a block of flats, complete with all conveniences. The State Housing Corporation operates throughout the country, while the other housing agency in the country is localized, even though its achievements are considered no less spectacular.

Tema Development Corporation

Obviously, the most ambitious housing project undertaken with public funds is the building of the Tema township by the Tema Development Corporation. As one of the executive agencies of the Government's housing programme, this Corporation has overall responsibility for the development of Tema, Ghana's first consciously created urban centre.

The Corporation's primary objective in the wider scheme of building a modern urban industrial township is to provide abundant low-income housing for the greatest number of people. The income-wise composition of its housing stock is as follows:

High Income	625	or	6%
Middle Income	621	or	5%
Middle-Low Income	4,745	or	27%
Low Income	10,369	or	62%
	16,360		

Rents Subsidy

Rents currently in effect are sub-economic and are related to the tenant's ability to pay. All rents charged in respect to low-income rental units are subsidized by the Corporation. It is estimated that about 80,000 or 90% of the people in Tema are benefiting from the Corporation's housing subsidy to the tune of between 30% and 50% depending on the house type.

It is also worthy of mention that tenants in the low-income groups who have lived in rental units for continuous periods of 5 years can own their houses on a hire-purchase system without making initial down payments. In addition to these executive agencies, other programmes such as co-operative housing have been completed for the low-income groups.

Co-operative Housing

In June, 1971, under the sponsorship of a Mission from the Economic Commission of Africa, a pilot co-operative housing scheme was started in Tema.

The members of this building co-operative are mostly building tradesmen and artisans enjoying fixed salaries and steady income from borderline cases among the low-income groups. They are expected to join an internal savings system in addition to contributing labour for constructing the houses. The first phase of the pilot scheme in Tema comprising 21 core houses was completed and allocated to the 21 members in September, 1973, while work on the next phase of 31 similar houses has commenced. The success of this venture has been extended to the formation of more co-operative societies in the country.

Improved Construction Methods

All these programmes are supported by our Building and Road Research Institute and the Housing Research Department of the Faculty of Architecture at our University of Science and Technology who undertake research to reduce cost and who organise demonstrations aimed at improving the design and the use of local building materials in the construction of traditional houses.

Of particular interest are results of researches into the development of a vigorous brick and tile industry and the use of prefabricated timber for the construction of houses.

In the light of the rapid growth of the population and the rate of urbanization, there is a need to evolve innovative solutions which call for increased support for research. To this end, my Ministry is having under serious consideration the setting up of a Housing Centre where researchers, technologists, contractors and all concerned with the building industry will meet from time to time for the dissemination of research information and applied technology. Our objective is to substitute local building materials for imported materials, reduce cost of construction to enable us to increase the housing stock at a faster rate.

Housing Stock

The combined effect of all the programmes outlined above resulted in the nation registering a substantial increase in its housing stock in the period between 1960 and 1970. For whereas the total increase in the number of houses in 1970 was 48%, the aggregate increase in the population was 27%. This is an indicator of the vigorous efforts on the part of our Government to solve the housing problem.

Future Programmes

It is not our intention to be content with our modest achievements, and one of the important steps being taken by our Government is the setting up of a body of experts to recommend a National Housing Policy for the country. This body will seek to identify, firstly, the extent of the problem; secondly, establish the main requirements for decent living of the people; thirdly, draw up a programme for the development and exploitation of resources; and fourthly, establish the strategy for achieving the objectives of the policy. It is hoped that when the recommendations of this body are accepted by the Government, a permanent National Housing Board will be formed in my Ministry to co-ordinate programmes aimed at improving the totality of the housing situation. For, as has been stated earlier, it is now realized that many activities and programmes have an impact on the housing situation and need to be co-ordinated to improve the quality of life of low-income earners.

Another important development is the serious consideration being given to the introduction of a site and service scheme for the low-income group as a means of increasing the supply of housing at a faster rate.

Site and Service Scheme

Site and Service Schemes have been adopted so far, mainly for the high-cost residential areas in the cities. The basic principle underlying this type of scheme does not limit it to this type of development only. The site and service schemes provide a feasible solution for the achievement of realistic housing targets to meet the present as well as future needs of the people, particularly low-income earners.

The site and service approach has two broad objectives: to concentrate limited public financial and professional resources by providing the type of urban infrastructure which the low-income population itself can manage, and to allow people to invest money, time or entrepreneurial skills (or all three) in house building or improvements at their own pace.

Secondary Mortgage Market

Hitherto, the financing of low-income houses has been only through budgetary allocation. But with the recent establishment of a National Mortgage Financing and Guarantee Scheme by the

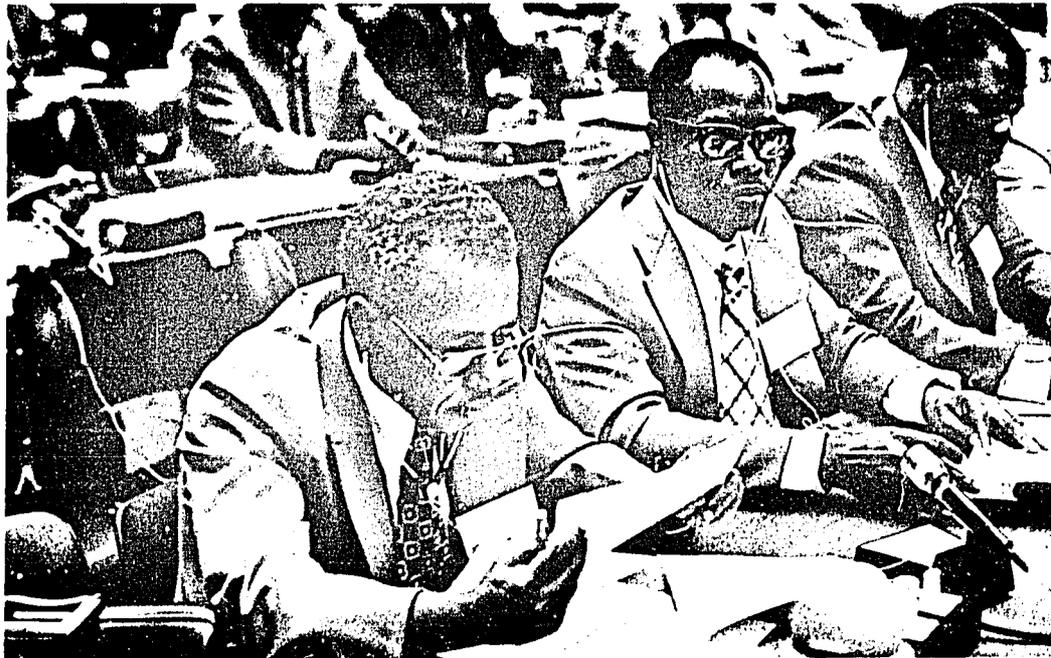
Bank of Ghana, it is expected that private savings held by the commercial banks would be channelled to co-operative societies to accelerate the rate of house construction in the country.

Conclusion

This paper has shown that the housing problem in Ghana has perpetuated over years and that the situation is being threatened by the rate of population growth and the rate of migration to the urban areas. For this reason, it was concluded that family planning programmes and the improvement of rural housing and the entire environment are necessary to solve these problems over the long run. Attempts being made to improve the per capita income include not only the improvement of environmental conditions in the rural areas but also the introduction of cottage industries. It is expected that when per capita income improves appreciably, then many income earners will take advantage by joining a co-operative society or by taking part in a site and service scheme to increase the rate of house construction in the country. In the long run, it is expected that the Government's role will be concentrated more and more on improving the environment and providing the community facilities necessary for decent living. An account has been given of the activities of our research institutions in attempting to develop and substitute our local materials (especially bricks and timber) for construction purposes so as to reduce the present high cost of construction.

It has been shown that the low-income groups live in both the urban and rural areas in Ghana. But since the size of the problem is large, different Government agencies are involved in the provision of housing for the rural and urban areas. Lastly, it has been shown that the extent of housing activities cover such a wide area of functions so as to demand a national co-ordinating body for which steps are being taken by my Ministry to form a National Housing Board.

Thank you.



THE FIRST WORKING SESSION BEGINS

Foreground left to right: Mr. J. Konan-Ferrand, Mr. D. S. Nandjui, Mr. S. Acquah — from the Ivory Coast.

SECOND WORKING SESSION

Chairman: Neal Goodson, USA

Participants: J. P. Mbogua, Kenya
S. M. N. Rionge, Kenya
P. S. Gujral, Kenya
G. J. Njau, Kenya
M. Yusuf, Kenya
Z. K. Kariuki, Kenya

Presentation of Papers by J. P. Mbogua

Discussion

NAIROBI CITY COUNCIL HOUSING DEVELOPMENT – CASE STUDY

by J. P. Mbogua, Town Clerk, Nairobi City Council, Kenya

Mr. Chairman, Distinguished Guests, Ladies and Gentlemen,

1. One major characteristic of cities in the developing countries is the influx of rural people to the urban centres. Somehow, feelings of the rural population are that people in towns and cities have better amenities. Their standards of living appear to be high. They are closer to international communications, and they have more and better means to earn their living. Therefore, people from rural areas seem to like the idea of exploring these opportunities for themselves and hence there is a continuous drift from rural to urban centres.
2. It is estimated that the population of Nairobi with its present growth of 7½% per annum will jump from its present 700,000 to about three million people by the year 2000. As the population of the city increases, so too does the demand for housing. As a result, the City of Nairobi is facing a mammoth task of providing housing for its new and old residents.
3. Confronted with a rapid growth of population, the Government of Kenya is making every possible effort to provide shelters for a maximum number of families, particularly in the lower and lower-middle income groups. Keeping in step with this national policy the Nairobi City Council has embarked upon various housing schemes in an effort to face up to this huge challenge of providing shelters for its residents.
4. The City Council of Nairobi is a municipal corporation and has responsibility for the administration of urban affairs. Responsibility of the housing projects is shared by departments like that of the City Treasurer, City Engineer, Town Clerk and Social Services and Housing.
5. In the decade from 1964 to 1973, Nairobi City Council has had an active housing programme as given in the following table:

Year	No. of Units (including S & S)	Cost per Unit Range (excluding S & S)
1964	350	S & S
1965	650	S & S
1966	-	-
1967	614	632 - 3,760
1968	1,118	675 - 1,500
1969	650	700 - 3,100
1970	1,198	1,060 - 2,200
1971	2,685	1,185 - 2,300
1972	394	1,210 - 2,270
1973	549	1,100

From this table, it will be seen that more than 8,000 units were completed during the said period at an average rate of about 800 units per year. The established need for housing is around 10,000 units per year as will be seen, and there is therefore a serious shortfall.

6. By the end of 1975, there existed about 130,000 dwelling units in Nairobi for a population of about 700,000 people. Of this number, 17% had been built by the private sector as authorised dwellings, 53% by the public sector including institutional housing and the remaining 30% were unapproved units constructed by individuals or by private building companies. Most of the latter are below acceptable sanitary and environmental standards. Of the total existing housing stock, 48% are of solid permanent construction with water and sewerage facilities connected to each dwelling, 22% are of low standard with sanitary facilities only up to plot site, and the remaining 30% are of mud or timber construction with sanitary facilities on a communal basis.

7. It is estimated that at present there are about 30,000 households in the city without dwelling units, but it is likely that a considerable number of families are sharing rooms with others. The total shortfall of adequate dwelling units in Nairobi is therefore estimated to be about 65,000 units, 52,000 of which are needed by the lower-income groups.

8. Several schemes have been planned recently with a view to ameliorating the shortfall. Some are already off the ground and for others preliminary works are in hand. The following table will give an indication as to our present programme.

Name of Scheme	Lower-Middle	Middle	Upper-Middle	Upper	Total
Buru Buru SA	179	91	112		382
Buru Buru NC and Phase III			2,828		2,828
Huruma		336	250		586
Kariobangi V		720			720
Kahawa	240	560			800
U.S.A.I.D. (Umoja)		2,743			2,743
Mathare Valley	213				213
Kariobangi Riverside		308			308
Komo Rock Road	400	1,060			1,460
Dandora	5,970	30			6,000
Kibera	300	640	50		990
Jamhuri II			416	284	700
Madaraka II		200	756		956
Misc. NCC staff, etc		210	471		681
Total	7,302	6,898	4,833	284	19,367

9. Out of the above schemes, Dandora which is a site and service project, consists of 6,000 units. This scheme will cater to a lower-middle income group and has been undertaken with the co-operation of the World Bank (IDA/IBRD). Another scheme, the Umoja Housing Scheme, consists of an estimated 2,700 housing units and will cater to lower-middle and middle-income groups and has been undertaken with the help of a US\$10 million loan from U.S.A.I.D. Both these schemes have reached an advanced stage, and it won't be very long before the actual allocation for future home owners will be started.

10. As against the above schemes, housing demands for the period 1976 to 1980 have been assessed as given in the following table:

Housed by	Lower	Lower-Middle	Middle	Upper-Middle	Upper	Total
Private + NHC high cost	7,000				27,000	34,000
Other private	24,000	24,000	24,000			72,000
Government & Institutional	3,000	5,000	5,000	2,000		15,000
Residual: City Council	18,900	30,700	22,300	50,100	16,000	138,000
Population increases	45,400	52,200	51,300	52,100	43,000	241,000
Population rehoused	7,500	7,500				15,000
Total housing	52,900	59,700	51,300	52,100	43,000	256,000

11. The above assessment has been made on a detailed and very wide survey conducted by various organizations. Based on the statistics provided by experts, it can be said that present trends of population growth in Nairobi show that from its present 700,000 inhabitants, it will increase to 1,010,000 people in 1980, 1.4 million by 1985, and as already stated to about 3 million people by the year 2000. Only a small proportion of this population may live outside the boundaries of City Council's administration, and thus it is estimated that an average of about 14,000 households annually will be looking for shelters either within the city or on its outskirts.

12. We are also aware that most of the migrating population will be from the lower-income class and will perhaps not find adequate employment. They will therefore place additional burdens on the council but will not be able to contribute to its revenues.

13. In addition to the increased housing demands because of population growth, a substantial part of the existing population also needs better shelters with at least minimum sanitary facilities, because at present they are living under substandard conditions.

14. Since 1973, the rate of economic growth in Kenya has slowed down, but the rate of migration of the population into Nairobi has continued to rise. Therefore per capita income has fallen significantly. In spite of a recovery trend in economic growth to its previous levels the high rate of population migration is expected to continue which, in turn, will mean no increase in the income up to 1985, and therefore per capita income may remain at the pre-1972 levels. This will obviously mean that demand for cheaper forms of houses will continue to be very high. Estimates of average household income are given in the following table:

	1972	1985	2000
Nairobi Total	£164,000,000	£174,000,000	£1,322,030,000
Income of Households			
No. of Households	135,730	324,000	670,000

Lowest 20% of Households			
Share of Total Income	3.5%	2.8%	2.5%
Amount	£5,740,000	£13,272,000	£33,050,000
Average Income per Household	£214	£228	£247
Low-Middle, 20-40%			
Share of Total Income	6.8%	8.7%	11.0%
Amount	£11,152,000	£41,238,000	£145,420,000
Average Income per Household	£413	£636	£1,085
Middle, 40-60%			
Share of Total Income	13.0%	14.1%	17.0%
Amount	£21,320,000	£66,834,000	£224,740,000
Average Income per Household	£777	£1,027	£1,677
Upper-Middle, 60-80%			
Share of Total Income	21.3%	21.4%	24.5%
Amount	£34,932,000	£101,346,000	£323,890,000
Average Income per Household	£1,286	£1,560	£2,417
Highest 20% of Households			
Share of Total Income	55.4%	53.0%	45.0%
Amount	£90,856,000	£251,220,000	£594,900,000
Average Income per Household	£3,352	£3,869	£4,440
All Households			
Average Income per Household	£1,208	£1,460	£1,973

15. The rate of population growth of Nairobi City has reached such a high level that the Council is no longer in a position to provide houses through direct means for the total increase of household annually. During the period 1970/1974, the annual rate of addition to the Council's housing stock averaged about 800 units, whereas the City's population has increased by about 10,000 households annually. The Council's present targets to provide houses per annum are about 3,000 units during the 1976/80 period. This obviously is far below the estimated needs of 14,700 units in and around the city each year.

16. During the period 1976 to 1985, it is estimated that a total of 105,100 additional houses will be required to meet the minimum needs of the city. This has been assessed as given in the following table:

Income Group	Households per Plot	Number of Houses Required	Annual Average
0-20%	2.5	11,784	1,178
20-40%	2.0	14,730	1,473
40-60%	1.5	19,640	1,964
60-80%	1.0	29,460	2,946
80-100%	1.0	29,460	2,946
		105,074	10,507

17. The preceding table as it will be seen takes into account the effect of multi-family housing in a higher proportion than what is at present. Thus to cater to 60% of households with lower incomes required an annual average of about 5,000 houses. A similar provision of about 5,000 units will also be necessary to cater to the 40% with higher incomes.

18. The private sector has provided less than about 1,000 authorised houses annually in recent years and now faces even greater financial and other difficulties. Even if the activity of the private sector may somehow be subsidised, it is unlikely to increase its output of medium and high-cost houses for the target of 5,000 units per year. It is therefore inevitable that the shortfall will put further pressure on houses to be provided for lower-income groups and thus the need to increase the provision of houses for lower-income groups.

19. Housing stocks for Nairobi can be increased by either direct construction or by providing plots for the private sector who may erect controlled housing units or by subsidising efforts of the private sector to the extent of land acquisition and development. The City Council of Nairobi has selected the most efficient combination of these means while determining its priorities to each of the different income groups.

20. It would be desirable to mobilise private individuals, groups and companies to provide a big proportion of the houses for income groups. But for various reasons, the private sector is less willing and also less able to provide properly serviced plots on which lower-income households may build houses. However, if the plots are already serviced, the public sector will be more tempted for further construction on them. The City Council therefore proposes to meet this problem either by providing serviced plots or completed dwelling units.

21. From the account so far given it will be seen that there is an urgent need for about 10,000 housing units to be developed annually. Out of this 10,000, if it is assumed that 5,000 per annum is for the higher-income group of 40% of the population which can be developed by the private sector, provided either serviced plots or other essential assistance is available. The remaining 5,000 units per annum for the lower-income groups of 60% of the households must still be developed by the City Council, and to achieve this, we have formulated a clear housing policy, within the framework of planned development of the City.

22. The Nairobi City Council has had considerable experience in a wide range of housing developments, including site and services, low-cost houses and high-cost units. We are fully equipped and can deploy effectively all available resources, for undertaking housing projects, whether for development of plots only or by providing partly or fully completed units.

23. Most of the City Council's financing for such projects has so far come from the National Housing Corporation, Commonwealth Development Corporation, Housing Finance Company of Kenya, U.S.A.I.D. and the World Bank, to whom we still depend largely for our future needs to face up to this otherwise impossible and gigantic task.

24. As a case study I would like to quote the example of a 2,700-unit low-cost housing project undertaken by my Council recently. The Nairobi City Council is indebted to the United States Agency for International Development who has arranged a long-term loan amounting to US\$10 million for this scheme.

25. The project is situated in an eastern section of the City, between Outer Ring and Dandora Roads, about six miles from the City centre, and has been divided into four sectors to form three zones, connected with New Dandora Road through a bus route (main road). There is a network of access and service roads within the scheme.

26. The eastern area extension which is almost square in shape forms a part of the overall master plan for the whole city of Nairobi. On the periphery of the site, development will consist of single-storey houses, while multi-storey buildings are proposed for the central part. Inner and outer parts are divided by a ring of social, commercial and education facilities. Adequate arrangements have been made for water supply, sewerage disposal, power supply, telephone lines and public transport to serve the estate, which has been named *UMOJA*, meaning unity.

27. Houses are grouped in blocks of 5, 6 or 8 units, set in a hexagonal grid, so as to provide vehicular access to each plot. A completed house (03 type) will consist of three rooms with one kitchen, w.c., shower and a corridor. Only 5% of such units will be constructed by N.C.C. Of the remaining, 21% will have two rooms (02 type) and 74% one room (01 type) plus kitchen, w.c., shower and corridor. Tenants who are allocated 01 or 02 type houses will be required to complete the remaining portion from their own resources.

28. The scheme is meant to cater to those lower-income group families who are residents of Nairobi and occupy the dwelling units as their principal place of residence. Allottees will not be allowed to purchase a unit for the purposes of speculation, and they must also not own any other property in Nairobi.

29. Estimated sales prices, monthly repayments and programme for completion of the project is as given in the following three tables.

ESTIMATED SALES PRICES

	HOUSE TYPE		
	01	02	03
Estimated Selling Price (Kshs)	28,860	33,500	36,800
Estimated Down Payment (Kshs)	5% 1,443	5% 1,675	10% 3,680

ESTIMATED MONTHLY REPAYMENTS (25 YEARS)

	HOUSE TYPE		
	01	02	03
Principal Interest	250.50	290.50	302.50
Rates	30.00	30.00	30.00
Insurance	5.00	5.00	5.00
Ground Rent	12.50	12.50	12.50
Total Monthly Repayment	298.00	338.00	350.00

ESTIMATED COMPLETION PROGRAMME

	1976				1977				1978	TOTAL		
	MAY	JULY	SEP	NOV	JAN	MAR	MAY	JULY	SEP		NOV	JAN
I	80	85	325	195	200	199	123	121				1327
II							120	120	121	214	151	710
III				155	88	102	74	91	100			626
Total	80	85	325	350	288	421	317	333	314	151		2663

30. Applications for the allocation of dwelling units have already been received and are being scrutinized simultaneously through computer as well as manually. Actual allotments to the qualified applications will take place through a random selection process by balloting.

31. Construction in the first two sectors has already reached an advanced stage, while in the other two it is about to be started. The whole scheme is planned to be completed by the middle of 1978.

32. On the basis of preliminary plans, estimates and programmes as well as negotiations for this loan were concluded in March, 1975, and the loan agreements were signed in Nairobi in June of last year. Thereafter, working drawings were prepared, and side by side, final planning, programmes, bills of quantities and tender documents were also completed. Tenders for the first two sectors were received in September, and actual work at site was commenced in October, 1975.

33. As I have said above, construction on these two sectors has reached an advanced stage and today more than 50% of the work has been completed in Sector I, and more than 30% in Sector II. Drawings, documents and prequalifications for the remaining two sectors has also been completed, and work in the third sector is expected to commence in the middle of the next month and in the fourth sector in the middle of June of this year.

34. Only 9 months ago we finalised this loan through the good offices of U.S.A.I.D. and the Governments of Kenya and the U.S.A., and here we are today with 200 units already completed, which will be handed over for occupation during the middle of next month. Thereafter, it is planned that 324 units will be completed in July, 350 in September, 288 in November and 421 in December of this year, followed by the remaining number of units during 1977, in similar phases. At this 25% stage of the project period, we have already completed about 40% of the total work involved and thus are well ahead of stipulated targets.

35. The scheme was planned, designed, estimated and is being executed by the City Engineer's Department of the Nairobi City Council. We have had difficulties in mobilising a task force due to the shortage of trained and qualified manpower in the country, and even then our progress is far ahead of the programme targets. We have however now reached a stage where appointment of a project team to undertake such schemes in the future is in sight. It can therefore be said with certainty that for any future projects of this nature, we will be in a position to produce even better results.

36. All this, of course, would have not been possible had we not received an active and most co-operative support at all stages from the Director of the USAID Mission, Mr. Nelson and his colleague, Mr. Goodson, along with all the distinguished experts who have visited us from Washington from time to time.

37. Last and not least we are particularly indebted to Mr. Peter Kimm the USAID Housing Head who is here with us today and who, as you all know, requires special congratulations from us for originating and co-ordinating this Conference on Housing in Nairobi.

Thank you.

DESIGN OF HOUSING PROGRAMME INCLUDING SITE AND SERVICE AND SQUATTER UPGRADING

J. P. Mbogua, Town Clerk, Nairobi City Council, Kenya

INTRODUCTION

Nairobi is a city of the developing world with only 80 years of growth. It has, therefore, a long way to go before it can be called an old city. Its present capacity of tax revenue indicates that much more population is required to pay the required taxes to maintain the level of required development.

This paper is meant to explain the problems/solutions encountered in the preparation and the design of the housing programmes including site and service and squatter upgrading.

URBANIZATION IN NAIROBI

Nairobi like all major cities in the developing world is faced with the critical situation with reference to urban policy, planning and programming. There is an unprecedented rate of population growth, both from within the city and from migration to the city. This rate of growth is not being matched by equivalent increases in available jobs, housing stock, utilities and services provision or urban land. The result is accelerating unemployment, overcrowding, slum development and squatting. Neither the quality of investment capital or tax revenue, nor the quality and quantity of technology, labour or management seem sufficient to meet the city requirements.

This critical situation is a difficult one to approach partly because the city is a complex system which has many sides or dimensions to its appearance. One set of problems is the demographic dimension of the population growth. The other set of problems have to do with the capacity of the city to provide work and shelter and other material goods and services which form the economic dimension.

Our observation about this situation *rests on the historical background*. Nairobi started off as a trading route and camp at the beginning of this century. It is largely a post Second World War II city with a population then of 65,000 people. Its present population is almost 750,000 people.

A broad observation of this population historically reveals that the city is occupied by the *old inhabitants* as the first generation. These are the people which first arrived and were mainly the businessmen; e.g., the railwaymen, the people who started as dukawala and brought rise to commercial houses; i.e., banks, insurance and fidelity companies, building societies, industrial and manufacturing companies. Then came the *government* as the second generation with law and order, and inherited the problem of providing the urban amenities and services. And lastly there came the third generation who were looking for employment from the old inhabitants and the government.

Presently the third generation can further be broadly observed in three subdivisions: The first, the enterprising group who made break through and acquired status; the second, the people who are just breaking through; the third, those people who are just arriving or have just arrived and who constitute about 60% of the city's population.

They are largely the subject of low-cost housing, sites and services housing and squatter upgrading programmes, and who appear to be a liability to the government and the local authority.

HOUSING

Housing, in its sense of organization of communities where none existed before and the inhabiting of them by people who have lived rural if not isolated lives, is seen as a desirable factor in the development process, and the design of the housing programme should always bear the communities in mind. In Nairobi the World Bank and Nairobi City Council – Dandora Project, and the United States Agency for International Development and Nairobi City Council – Umoja Project serve as two reasonable examples having this concept.

Low-cost housing is not a technical problem but a political and economic one: political because a politician's decision-making process or lack of it can make the difference between a successful housing estate and a disaster; economic because a city such as Nairobi in the developing process suffers from a lack of capital at the third generation level described above, and priorities must be set for the spending of public funds. The choice exists of whether to build dwellings costing Shs.80,000 and Shs.160,000 for the middle class or to put an equivalent amount of money into self-help housing or into "site and service" or into squatter upgrading schemes. The decision-making process of the choice in a political situation is not a simple one.

Our observation of the term "housing" takes us to accept that housing should be shelter plus services, where shelter meant any type from a simple plot with four pegs defining the area up to a complete house or flat, and services include: the physical infrastructure of water, sewers, electricity; communication as roads, transportation, telephones, police administration etc.; community services – education, health, social services, recreation, shopping, religion etc.

In order to achieve the "performance specifications" for the physical outlook of housing in the urban form the social function of housing must be defined as: protection, privacy, recreation, work, feeding storage, hygiene, education and the urban integration to create the urban environment.

DESIGN OF HOUSING PROGRAMME

The city's growth action areas have recently been re-defined in a corporate process and recommended through the Nairobi City Council Urban Study Report from where the first of the three primary elements of development i.e. land, manpower and finance, therefore land, should be obtainable. This report also defines the trend of the population increase stating that by 1980 the Nairobi population will be some 1,000,000 and gives the quintile distribution of the increase in population by income as tabulated below, together with household size and derived affordable expenditure on housing.

quintile	ave. income/ household	number of people	ave. people/ household	number of households	affordable shs./month	exp. on housing & capital
lower	£ 214	45,400	4.04	11,250	71/=	£ 368
lower-middle	£ 413	52,200	4.64	11,250	138/=	£ 715
middle	£ 777	51,300	4.56	11,250	259/=	£1,342
upper-middle	£1,286	52,100	4.63	11,250	429/=	£2,217
upper	£3,352	43,000	3.82	11,250	1117/=	£5,786
All	£1,208	241,000	4.3	56,250	403/=	£2,087

The main source of the Nairobi City Council housing programme as defined in the present National Development Plan is the National Housing Corporation. The preceding table and the quintile formulations of the National Development Plan both give guidance to the design of the City's housing programme. In times of unknown inflationary trends it is almost an impossible task to obtain housing per quintile with the affordable expenditure. The target population per programme with the function of time tends to change.

Other sources of housing capital finance are international, and the United States Agency for International Development, the I.B.R.D. and the C.D.C. are important sources.

The total cost of the Council's 1976-1980 housing programme is £29,000,000. The finance foreseen from various sources currently is £16,700,000 at current prices. There is thus a shortfall on the housing need of some £13,000,000 excluding price escalation.

In order to implement the programmes of those whose source of finance has been foreseen and those whose source has not been foreseen, the manpower, quality and quantity tends to become a shortfall. The manpower market in the City tends to contract in a given time and changes occur. This in our view seems the biggest constraint both in the design and implementation of the housing programme.

The rate of approved housing production in Nairobi is about 1,000 houses per year. The required number in the next five years is 20,000 approved houses, i.e. 4,000 approved houses per year. This figure is underestimated. Within the corporate thinking and corporate planning context the entire impetus requires to be increased four times.

Our observation is that in Nairobi both the Government and the Local Authority should increase the comprehensiveness of providing opportunities for private as well as public investment. The programmes should be continuous by being closely related to the rate of population growth of the city. The system of five-yearly surveys should be replaced by a continuous system of market research, which would endeavour not only to establish the changing needs of the population, but would also record how such needs were met by the action programmes of the authorities and would feed back this information to the planners. The scope and space of the action programme would be governed by this system of market research and by the avowed intention to provide at all times ample opportunity for the available and forthcoming private investment potential.

In this respect action planning will, as it happens in the Nairobi City Council establishment, be four dimensional. Planning the speed and sequence of operations would form an essential part of each action plan. Timing should be such that the planner would always be one step ahead of the official dealing with land acquisition, who in turn would be expected to be always one step ahead of those who were to plan and build roads, housing and other public utilities. These in turn would always have to be one step ahead of the public and private investors for various requirements, and the agencies concerned with the distribution of already developed plots. The conveyance would always be one step ahead of construction, and the operations of the builders would have to be synchronized in such a manner that houses, block of flats, schools, dispensaries, markets, shops, community services, public transport and recreation facilities would grow up in the right order. This emphasis on timing of the operations in the action programmes has two objectives. One is to shorten the period of time between investment and return. The use of the term "market research" and the emphasis on timing should both be intended to induce public authorities to plan their operations similar to those of large financial or commercial undertakings. Building houses and flats at the rate of 10,000 per annum (the present Nairobi figure) with the development of land and utilities, small scale and large scale industries and everything else which belongs to it involves the investment of vast sums of capital. As money is expensive in Kenya as everywhere else in the world, interest rates form a substantial item in the ultimate bill of cost of the development. Investment must bear fruit in the shortest possible time. This is how the Umoja Project previously

mentioned was conceived. Speed and careful synchronising of all operations are therefore essential parts of designing and planning. The second objective of the emphasis on timing and therefore contracting procedures is the use of action programmes as tools of employment planning. The building industry is a large employer in Kenya and Nairobi. Action programmes could be stepped up to achieve conditions of full employment when these were wanted and slowed down to provide working power for the other purposes should this be required.

The *idea* of a series of carefully timed action programmes launched through public initiative is stimulating to the architect and those concerned with the implementation of the programmes. It provides opportunities for conscious shaping of the urban environment and for the realisation of urban design ideas during his lifetime. This is an advantage over the conventional control planning, which should be replaced. However perfect the vision of the planner who produces the conventional master plan, the realisation of his design will depend on the action of a multitude of individual developers, and may take several generations to be completed. Within the Nairobi City Council framework this *idea* is already under experimentation and such terms of corporate thinking as task force, working party and corporate planning for the purposes of the action programmes have already been accepted by the Council. We are hoping that this approach will preface and epilogue the establishment of "performance standards" and the agreement of a guiding concept which would shape the individual action programmes into the complete picture of the future city built form.

All in all about the design of housing programmes and because we are commissioned by a client, i.e., the NCC, our first objectives always are:

1. to satisfy our client and the tenants
2. to produce the building at the right price
3. to complete the building at the agreed time in this order of priority.

EXAMPLES OF NCC RECENTLY OCCUPIED HOUSING ESTATES

Name of Estate	Number of Units	Quintile	Year of Occupation
Uhuru Estate	1422	Lower Middle	1972
Jamhuri Estate	228	Upper	1969
Kariobangi S. Estate	624	Middle	1972
Kimathi Estate	345	Middle	1970
Madaraka Estate	600	Upper Middle	1973
Harambee Estate	401	Middle	1974

EXAMPLES OF NCC HOUSING ESTATES UNDER CONSTRUCTION

Name of Estate	Number of Units	Quintile	Year of Occupation
Umoja Estate	2560	Middle	1976 – 1978
Dandora Estate	6000	Lower Middle	1976 – 1978
Huruma Estate	586	Upper Middle	1977
Buru Buru SA	382	Upper Middle	1978

OTHERS PROPOSED

Kariobangi South Phase V
Kahawa West
Mathare Valley
Kariobangi Riverside
Komo Rock Road
City Park
Jamhuri Estate Phase II
Madaraka Estate Phase II

These estates will house various quintiles of the population and provide 10,000 homes by 1980.

Our observation on the lowest quintile, i.e., the population below the lower-middle grouping, takes us to accept that the lowest quintile which would be unable to afford public housing at minimum standards would be housed by subletting units provided to the higher-income groups; and the upper-income group, if unprovided for by the private or the public sector would be housed in houses of lower value than they would otherwise afford.

EXAMPLES OF SQUATTER UPGRADING

Shauri Moyo Estate
Old Pumwani Estate
Mathare Valley
Kawangware
Ziwani Estate

The upgrading here is taken in the sense of urban renewal that the physical infrastructure, i.e., water, sewer, electricity, roads and drainage, will be provided; water borne sanitation will be provided at either some central location in the neighbourhoods or at every dwelling unit as proposed for Ziwani Phase I and II; landscaping and recreation facilities will be provided; and lastly other community amenities and utilities will be considered.

CONCLUSION

The foregoing is a summary paper reporting various issues of the "design of housing programme including site and service and squatter upgrading." It does not attempt to prepare and present any specific programmes.

DISCUSSION:

A question was asked about "speculation" by new home owners, that is the letting or renting of property for a profit.

A unanimous conclusion was that speculation is very difficult to police. The increase in housing demand is a powerful force and quite tempting to a new home owner.

Follow-up conclusions to control speculation were:

- 1) Originally sell housing at actual market value, rather than false low value.
- 2) Do not allow resale, except back to corporation or housing organization.
- 3) Strict enforcement of sublease requirements.
- 4) Allow only limited, controlled amount of subleasing.
- 5) Purchase Agreement be structured to not assign beneficial interest or title of property until fully paid.
- 6) Control of speculation a question of administrative effort.



THE SECOND WORKING SESSION

Foreground left to right: Mr. H. N. Quao, Mr. I. Inusah, Mr. E. Hornsby Odoi, Mr. Edward Afriye – from Ghana.

FIELD TRIP TO NAIROBI HOUSING PROJECTS

The route through the eastern areas began at Pumwani, a very early urban settlement scheme. Policies focused on redeveloping this area with what was considered to be more permanent and acceptable buildings. The first phase of New Pumwani was pointed out.

Unfortunately, while the solution of 4-story flat blocks was a technically exciting one, it did not serve the purpose of rehousing the majority of Pumwani residents. The next level in the new buildings was over three times that of the old property.

MATHARI VALLEY

Passing along this squatter settlement it was explained that over 100,000 people lived in this area. Following a cholera scare, main access roads, water, communal toilets and street lighting were provided.

SITE AND MINIMUM SERVICE (N.E. end of Mathari Valley)

Centrally located toilets, showers and water supply and prototype houses were seen. The flat size 10.5 m. x 12 m. cost £135 per plot.

SITE AND SERVICE (N.E. end of Mathari Valley)

On this part of the site, individual flush toilets and showers were provided on each plot. The plot size - 10.5 m x 12 m. cost £180 per plot.

THE CORE UNIT PILOT SCHEME (Eastern end of Mathari Valley)

These experimental houses were built using various local materials murrum, cement, blocks, sisal panels, papyrus grass, timber and pre-cast concrete.

This solution minimizes the amount of imported materials used.

THREE-ROOM UNITS CAPABLE OF EXPANSION (Mathari Valley Development adjoining Juja Road near the Outer Ring Road)

The super-structure of these units was built by "labor only" contractors. The Council provided foundations, infrastructure and materials (i.e., restricting itself to those aspects which the contractors cannot deal with themselves). Careful checks were made on quality and quantity control. The houses, complete with all the services, were available for about Shs.150/- per month, i.e., about Shs.50/- per habitable room. This compared favorably with room rents of private property in the vicinity *without any services whatsoever* (1971/1972).

GENERAL (Mathari Valley)

Development by flat allottees is carried out in accordance with type plans generally and under the supervision and guidance of Council Site Supervisors.

KARIOBANGI SITE & SERVICE SCHEME

This was the first site and service scheme undertaken by the Council. Plots were serviced with roads, footpaths, street lighting, flush toilets and washing slabs.

Finally the route passed through the Kariobangi Housing Scheme, Dandora Housing Project, along side Outer Ring Road Schemes, Buru Buru Estate and Umoja Housing Scheme (USAID/NCC Scheme).

KARIOBANGI HOUSING SCHEME

Three-roomed single story and four-roomed double story units were constructed by direct labor and labor only contractors.

OUTER RING ROAD SCHEME AND BURU BURU HOUSING SCHEMES

The route passed along these developments. The existing housing units and houses under construction were part of the Eastern Extension Area to provide 5,000 units.

DANDORA COMMUNITY DEVELOPMENT SITE AND SERVICE PROJECT

The project when completed, hopefully by the end of 1980, will comprise of 6,000 serviced plots, 6 primary schools, 6 markets, 2 health centres, 1 sports complex and 2 community centres – all financed from a US\$30 million fund obtained as follows:

- a) US\$8 million being a loan from IDA borrowed at 4% p.a. for 50 years, by the Kenya Government.
- b) US\$8 million being a loan from IBRD borrowed at 8½% for 25 years by the Kenya Government.
- c) US\$14 million, being a contribution by the Government at 6½% p.a.

The Services comprise of tarmac primary roads, murrum secondary roads, which give vehicular access to every plot and provide one vehicle parking space for every two plots. The plots are served with treated water with its own water meter, and a water tap in the bathroom. The toilets are water borne with the W.C. discharging into the sewers. The treatment of the sewerage is done in oxidation ponds. Some street and security lighting is to be provided. At strategic points, hard surfaces will be provided for the collection of the refuse. Some plots will have a kitchen, while 300 plots will also have an additional room.

These plots will be allocated to people who have families, have stayed in the city for more than 2 years, have no other property in the city and have an income of between K.Shs.280-K.Shs.650. p.m. From all who qualify, the final selection would be done on a random basis by a computer.

The project is being undertaken in two phases:

Phase I consists of 1,000 plots, and this is taking place now. The construction period is for 1 year, due to end in October 1976.

The second phase will hopefully start early in 1977.

The plots are generally of four sizes, 100, 120, 140 and 160 sq. m. Allottees would be allowed to obtain loans for materials to build a maximum of two rooms and the rest to be built with funds from the allottees' own resources or through their own initiative. The loans would be for 25 years in the case of plots with a kitchen and a store and 30 years in the case of plots with only a bathroom and toilet room. The interest being 8½% p.a. to the allottee.

The personnel undertaking the project is composed of technical officers, community development workers, financial analysts and accountants and administrators. In all, there are nearly 40 people mostly junior cadres.

The site of the project is 12 km. east of the city, and the transport is by bus.



FIELD TRIP TO NAIROBI PROJECTS
A visit to Umoja Estates

UMOJA ESTATES PROJECT

The Scheme consists of approximately 2,563 (in the first instance) dwelling units being constructed on a site situated in the Eastern Section of Nairobi approximately six miles from the city centre, with Outer Ring Road on the West and New Dandora Road on the North.

The Project has been divided in to four sectors to form over all three zones connected with New Dandora Road through a Bus Route (Main Road) and a net work of Access and Service Roads within the scheme.

Eastern Area Extention, which is almost square in shape, forms a part of the over all master plan for the whole city. The periphery of the site development will consist of single-story houses, while multi-story buildings are proposed for the central part. Inner and outer parts are divided with a ring of social, commercial and education facilities.

The scheme has adequate water supply, sewerage disposal, power supply and transport arrangements.

Houses are grouped in blocks of 5, 6, or 8 units set in a hexagonal grid, so as to provide vehicular access to each plot. A completed house (O3 type) will consist of three rooms with one kitchen, W. C. shower and a corridor. Only 5% of such units will be constructed by the Nairobi City Council. Out of the remaining, 21% will have two rooms (O2 type) and 74% one room (O1 type) plus kitchen, W.C., shower and a corridor. Tenants who are allotted O1 or O2 type house will be required to complete the remaining portion themselves.

ELIGIBLE APPLICANT

The Scheme is meant to cater to the lower-income group families who can certify to the satisfaction of the Nairobi City Council that they will abide by all rules, regulations and by-laws of the Nairobi City Council regarding this scheme. They will occupy the dwelling units as their principal place of residence, a dwelling unit will not be purchased for the purposes of speculation, and they will not own any other property in Nairobi.

Furthermore an applicant has to be permanently employed in Nairobi. Preference will be given to those who live with families in Nairobi.

ESTIMATED SALES PRICES

	HOUSE TYPE		
	01	02	03
Estimated Selling Price (Kshs)	28,860/-	33,500/-	36,800/-
Estimated Down Payment (Kshs)	5% 1,443/-	5% 1,675/-	10% 3,680/-

ESTIMATED MONTHLY REPAYMENTS (25 YEARS)

	HOUSE TYPE		
	01	02	03
Principal Interest	250.50	290.50	302.50
Rates	30.00	30.00	30.00
Insurance	5.00	5.00	5.00
Ground Rent	12.50	12.50	12.50
Total Monthly Repayment	298.00	338.00	350.00

N.B. These prices are only provisional.

RULES

1. **Terms:** The Lease shall be for a term of 50 years (less the last three days thereof).
2. **Relationship:** The relationship between the Council and the Tenant Purchaser shall be governed by the tenant Purchase Agreement and the Lease Document.
3. **Residence:** Until the Grant of the Lease in accordance with the Tenant Purchase Agreement, the Tenant Purchaser shall covenant to reside in the premises.
4. **Subletting and Assigning:** During the first five years of the Tenant Purchase Agreement, there shall be no subletting of the premises or any part thereof or the assigning of the rights under the Agreement.
5. **Completion:** Applicants who are allocated the one and two-roomed houses will be expected to develop the unit in full.
6. **Repayment Period:** Repayment period of the Tenant Purchase Agreement will be 25 years.

ALLOCATION PROCEDURE

1. Applications on prescribed forms in duplicate (placed in this brochure) duly supported with documentary evidence as required therein should either be handed over personally at the tenant purchase office, City Hall, or sent through registered mail to the Town Clerk, P.O. Box 30075, Nairobi, so as to reach in either case not later than 8th March, 1976.
2. Each application should be accompanied with a fee of K Shs. 50/- in cash, bank draft or a crossed cheque.
3. A cheque or bank draft for the exact amount of the down payment as explained on a previous page of this paper or as defined in the letter of offer should be received by the Town Clerk, P.O. Box 30075, Nairobi, within seven days of the receipt of the said letter of offer to the successful applicant.
4. Incomplete applications or those without fee of Shs. 50/- will be rejected summarily.
5. Those applications which are complete in all respects and are accompanied by the application fee will be scrutinized.
6. After scrutiny those applications which are found to be eligible will be kept on record and processed further.
7. Applications found eligible in all respects will go through a random selection process, using either the computer or simple balloting.
8. A list of successful applicants will thus be drawn to whom a letter of offer will be sent. This letter of offer will specify date by which an acceptance of the allottee and down payment must be received.
9. Should any successful applicant fail to accept, pay the down payment or take up the house for whatever reason, the same will be allocated to the next successful applicant from a supplementary list of eligible applicants, drawn using the same procedure as outlined above.



A MEETING WITH HER WORSHIP THE MAYOR OF NAIROBI
Left to right: Mr. John Mbogua, Town Clerk; Mr. E. Paul Mwaluko, Director U.N. Housing; Her Worship Miss Margaret Kenyatta; Mr. Andrew Ngumba, Deputy Mayor.

THIRD WORKING SESSION

Chairman: A. Votaw, USAID/Ivory Coast

Participants: C. P. Katele, Zambia
J. Konan-Ferrand, Ivory Coast

Presentation of Paper by C. P. Katele

Presentation of Paper by J. Konan-Ferrand

Discussion

DESIGN ASPECTS OF LOW-COST HOUSING PROJECTS

(Submitted by C. P. Katele, Senior Member of Town, National Housing Authority, Zambia)

I. INTRODUCTION

This paper sets out to illustrate certain design aspects which have been motivated by environmental, human, social and economical problems related to the Zambian way of life in resolving housing problems for the low-income groups.

For the sake of simplicity, the paper will deal, in outline form, with Architectural and Physical Planning aspects related to the design of low-cost projects as experienced by the National Housing Authority in Zambia.

II. HISTORICAL BACKGROUND

A. Urbanisation in Zambia

Since 1963 the urban population of Zambia has increased from 745,000 to 1,822,000 in 1976; this represents an increase of 155% over the past 11-year period. Should this phenomenon continue the ratio of urban population in Zambia would rise from 20% in 1963 to 36.5% in 1976.

Although Zambia's total urban population is relatively small compared to many other countries, its rate of urbanisation and rate of urban population growth, especially in Lusaka and the Copperbelt towns is high. For example the population of Zambia as a whole increased by 3% per annum from 1963 to 1969.

Underlying this pace of rapid urbanisation in Zambia is the massive influx of the economically weak migrants from rural areas. This trend has in turn provoked critical shortages in housing of the low-income groups characterised by overcrowding, the mushrooming of squatter settlements and the heavy demand for low-cost Local Authority housing.

In an effort to resolve these housing problems, individual families on the one hand, and the Government on the other, have evolved certain housing strategies whose careful interpretation may significantly change the future design of housing for the lower-income groups.

B. Urban Shelter in Zambia

Since colonial times much housing in urban areas has been tied to employment and thus not available to job seekers, the self-employed, the retired and other groups. Today, rented dwellings form the largest proportion (71.9%) of the total, and owner-occupied houses are relatively less important (28.1%). Despite the assumed obligation by employers to provide housing for their employees, the actual provision of houses has fallen far behind the demand, and the local authority housing is far from sufficient to meet the demand from those not provided with housing by their employers.

In this situation, people's response has been to build their own houses, and unauthorised areas have grown up and spread rapidly, especially around Lusaka. This spirit of self-help and self-reliance, insofar as the provision of accommodation by the residents of squatter areas, has been recognised by the Government to the extent that the Second National Development Plan (SNDP) recognises that although unauthorised areas are unplanned, they represent assets both in social and financial terms, and money is allocated for their upgrading (K5 million). Upgrading is envisaged as including the acquisition of land, control of further unauthorised development and the provision of piped water, a sewage disposal system, roads, surface water drainage, street lighting and other communal services.

To sum up, recent experience in Zambia has demonstrated that officially planned solutions to housing problems have met little success. The people for whom these plans did not accommodate, acted on their own to produce appropriate and original solutions for housing themselves. These solutions could be adapted for those in higher-income groups as well. Some of these solutions are discussed overleaf.

III. ARCHITECTURAL ASPECTS IN THE DESIGN OF LOW-COST HOUSING PROJECTS

A. Housing Design: Functional Requirements

Although the means may not be available to satisfy all or most of the requirements of a house, it is considered important that these should be stated, and an attempt made to evaluate the possibilities of solving them. It is an assumption of the whole of the following section that mobility within the self-help housing sector is low, and that there is and will continue to be an attachment to a self-built house that is such that families will continue to live in them for a considerable period of time¹. It follows from this that the initial house should be capable of expansion into a size adequate for all but exceptional requirements without undue expense and trouble, and that the house will be the subject of continuous small-scale investment.

B. Space Requirements

It is not sufficient to consider space purely in terms of area, it is the usability of space that is important. Accordingly the following criteria may be used:

1. The division of the space into the number of separate spaces required for privacy and functional convenience.
2. The sizing of these spaces (or rooms) to accommodate the activities and furniture required in that space.

¹ Figures from Ndola and Lusaka show that the turnover by sale of houses in Site and Service schemes is less than 5% per year. Even if this rate doubles - and it can be expected to rise - the average house will be in a single family occupancy for ten years, a sufficiently long period for home improvements to be very common.

C. Family Size and Number of Rooms

The number of rooms required will depend on the family size. In Zambia as a whole, the average family size was 4.7 in 1969². Although this size of family, say two parents and three children, may be accommodated in a house of three rooms without undue inconvenience, it must be recognised that three rooms would be inadequate for a substantial proportion of Zambian families; 24.3% of the households include seven or more persons. If we are to take the long-term view advocated in the introduction to this section and anticipate the number of children that each family can expect, the numbers are even higher.

It is apparent in Zambia that large families are very common, six surviving children being the most common family size. The immediate prospect is that family size will increase with improved medical facilities which affect both infant mortality and adult life expectancy. Also, due to an increasing stability of families in towns, the once common split of families between urban and rural areas will become rarer and household size will thus increase.

Commonly a four-bedroom house is considered by Zambians to be the minimum size for decent living³, and it may be seen from the above that this is based on a realistic assessment of ultimate family size. The need is expressed in the following terms:

- Bedrooms for parents and small baby
- Bedroom for boy children
- Bedroom for girl children
- Bedroom for visitors

Therefore a house capable of expansion to four bedrooms is considered below.

D. Size of Rooms

Present space standards in low-cost housing are based on the following thinking:

1. that bedrooms should be 8.4m², with a cubic capacity of 10.2m³ per person, and theoretical occupancy rate of two adults or four children,
2. that the kitchen is preferably about the same size to allow for dining in it (particularly for women and children) but that it may be smaller (down to about 4.5m²) if necessary for economy,
3. that the living room is rather larger, at least 10.2m² and preferably about 11.2m².

In a National Housing Authority survey² it was observed that the furnishing of many houses with rooms this size was such as to make the space completely inadequate. In the case of the bedrooms, this was sometimes the designer's fault: the door could not be fully opened because of the beds⁴. In the living rooms of the more affluent, it could be said that the desire for impressive furniture overrode the need for common sense.

² Survey of five different house types in Lusaka (100 in all) covering income ranges from K 30-K120.

³ Laid down by the Ministry of Local Government and Housing in 1965. It is also worthy of note that houses built in low-cost housing areas and Site and Service schemes have not been subject to the Public Health Act (Building Regulations) but are instead controlled informally by the Council.

⁴ It should be noted that in a substantial proportion of the houses visited, the parents' bedroom was fully furnished with beds, wardrobe and dressing table, while the children's bedrooms consisted of only a chair, suitcases and beds or mats on the floor.

For example, a large radiogram is one common feature, another virtually inevitable one is a very heavily upholstered three piece suite. (In some cases the family was clearly underhoused as far as their means were concerned, and they were acquiring goods in preparation for a larger house. But to judge by the furnishings in other rooms, the desire was commonly to impress). It is therefore, very difficult to assess how great the need is for more space. It is probably true to say that 12m² in the living room and 9m² for two-person bedrooms would be sufficient to accommodate the expressed needs of the complainants in the survey.

On the other hand, it must be recognised that these space standards (although complaints about them, particularly about the living rooms, are very frequent) represent an acceptable standard even to those with much better incomes elsewhere in the world⁵. In an uncontrolled situation, most houses have much smaller rooms.

Room Sizes in Typical Houses in Squatter Area (George)

Size of Room (m ²)	Frequency
3 – 3.9	12
4 – 4.9	19
5 – 5.9	27
6 – 6.9	28
7 – 7.9	20
8 – 8.9	12
9 – 9.9	7
10 – 10.9	4
11 – 11.9	3
12 – 12.9	2

Source Lundgren, Schlyter and Schlyter. (Plans measured and results tabulated by the National Housing Authority.)

The average area of rooms specifically used for sleeping is shown as 5.96m². Therefore, the design illustrated incorporates smaller rooms in the initial stages which may be amalgamated at a later stage.

E. Functional Relationship of Rooms

The survey by the National Housing Authority quoted above revealed that questions about the way the house “worked” were not meaningful. Temporary inconveniences such as having to sit outside when it is very hot, or having to put the children in the kitchen to sleep were accepted as more or less inevitable. More positive reactions came from roof leaks and the size of rooms (discussed above). But the only strong feelings concern the siting of the W.C., with regard to its incorporation into the same compartment as a shower, and the placing of rooms to allow separation between the sexes (particularly insofar as going to the W.C. is concerned). The general approach to the functional development of a house may therefore be described as follows:

⁵ For example, minimum bedroom size in Malawi is 7.4m², it is 6.5m² in Britain and 4m² in Hong Kong.

The W.C. should be sited in such a way that the door to it also leads to another room. In this way a person going towards it will feel less embarrassed, as he (or she) may always pretend that he is going elsewhere.

The route to the W.C. should not pass through an area commonly used by the opposite sex for sitting in.

For convenience (with big families) and for decency it is strongly felt that the W.C. and shower should be in separate rooms.

During leisure periods there is commonly role/sex separation, and meals⁶ are also sometimes separated. During the day on weekends men often sit inside while women sit outside near the kitchen door; alternatively the men sit at the front door or go out, leaving the women to look after the children.

Another requirement, which so far has been overlooked in the design of houses in Zambia, but not elsewhere in the region, is the practice of letting out single rooms⁷. There is not much over activity in this direction in authorised housing in Zambia⁸. Nevertheless in the George Survey⁹ it was found that 13.8% of the families occupy one or two rented rooms. The benefits of this may be stated as:

1. The provision of accommodation at an economical price.
2. The provision of accommodation to suit those who have recently settled in Lusaka, while they are looking for permanent quarters.
3. The provision of accommodation to suit small families and single persons.
4. The establishment of a supplementary income to assist in capital formation for the enlargement and improvement of housing by plot-holders.

It is, therefore, proposed that more flexibility in the design of houses be encouraged so that those who wish may share their house with another family.

In some cases, this may mean simply giving a room an outside door. In others it could mean an entirely different approach to the design of cooking and lavatory facilities. Nevertheless, in the design illustrated no special measures for this have been incorporated as there has not been the time nor experience to develop this in detail. In addition it should be noted that the designs have been prepared primarily to illustrate the cost implications of different levels of shelter, and such adjustments to the plan will not normally make a great difference to the cost.

⁶ The National Housing Authority Survey showed that in houses provided with living rooms and kitchens big enough to eat in 29% ate in a different room, men in the living room, women and children in kitchen, 59% ate as a family in the living room, 10% ate in kitchen and 5% in a bedroom.

⁷ In East Africa the four or six room Swahili house, has been used for letting like this for years. In addition new house designs are being evolved to take account of this need. See "Two Housing Schemes in Thika," Housing Research and Development Unit, University of Nairobi.

⁸ Apart from New Kanyama, Lusaka. For an account of this settlement "Lodgers and Houses in New Kanyama" by Dr. F. E. Okada, Department of Community Development, 1966.

⁹ Department of Town and Country Planning, 1973.

F. Appearance

Perhaps because the type of house commonly built in low-cost housing areas is so different from traditional housing, because so much of the day is spent out of doors, or because so many people can afford much less than they need, the detailed functional aspects of housing is often a lower priority than the appearance.

The ideal appearance maintained above probably relates back to the ideal of the expatriate's house in a large garden. Features most sought after are:

- Large windows
- Stone facing or similar
- Elaborate porches
- Decorative burglar bars
- Unusual window designs
- Chimneys

These features are often forcefully expressed in site and service houses. The evidence even goes so far as to suggest that given a free hand, participants would rather spend money on surface embellishment than more space. For example a ceiling and plastic floor tiles would be preferred to an additional bedroom¹⁰. Nevertheless the trend of national policy has been to provide a diminishing proportion of such "extras" so that the most recent so-called Very Low-Cost Houses are not plastered and even have internal doors omitted. Electricity has also been omitted in nearly all houses built within the last two years. The principle is, of course, that such things may be added later, and now that Government policy emphasises tenant purchase, it is left to the purchaser to make such improvements as he may wish. Nevertheless tenants commonly invest money in varying degrees to improve the appearance of the houses even when they have only month-to-month tenancies. The commonest example is painting the porch a distinctive color, or decorating around windows, or occasionally (particularly in the Copperbelt) painting figures or flowers on the walls. Gardens are also the objects of considerable attention as far as the front is concerned¹¹. Occasionally even the whole house may be repainted or plastic tiles laid on the floors.

G. Summary: Design Criteria

Houses should, therefore, be designed to:

1. Allow the maximum number of variations externally.
2. To have the W.C. in a non-embarrassing position.
3. To allow at least limited separation of the sexes at a social level.
4. To be capable of expansion to a four-bedroom house.

The annexure to this paper shows how some of these elements can be adopted in the design of a low-cost housing unit.

¹⁰ These results are from a gaming analogue computer built by the National Housing Authority in 1972 and used on a self-selecting sample at a public exhibition. The range of income groups was considerable.

¹¹ In "Gardens and Outdoor Living" (NHA) it was found that an average of 21 sq. metres were cultivated for redecorative purposes, as opposed to 19 sq. metres for useful purposes.

IV. PLANNING ASPECTS IN THE DESIGN OF LOW-COST HOUSING PROJECTS

In recent years, a number of research studies have been carried out by the National Housing Authority, The University of Zambia and other outside researchers. These have demonstrated the emergence of a physical planning philosophy which could be modified and adapted to suit the needs of all low-income groups.

A. Housing Layout

It is clearly manifest from an environmental functional point of view that the colonial housing layout, for low-cost local authority housing, which constituted mainly engineering solutions and usually taking the form of grid iron pattern, was not suited to the peoples' life styles. By contrast, intuitively evolved layouts for groups of houses in squatter areas have resulted in the following: the grouping of houses around a communal open space, the separation of functional and meeting areas of men from women and, in particular, the physical interpreting of the avoidance rules which relate to the accommodation of the parents-in-law. These flexible layouts have resulted in a philosophy based on traditional values, and can be logically modified to suit changing urban life styles.

B. Housing Densities

The true significance of benefits to be derived from adoption of the planning philosophy discussed above would manifest itself in the reduction of infrastructure costs. The contributing ingredients are considered to be:

1. If a group of say 25¹² houses could be sited around one communal open space, better use could be made of one large open space than would be the case if each plot had its own tiny patch of recreational space.
2. Having done away with fragmented open spaces, the amount of land reserved for each house can be reduced, thereby raising the density but lowering the servicing costs for each plot.

C. Land Use Zoning

The absence of legal restraints in squatter areas has meant that anyone with a bit of imagination can try his hand at income-boosting activities such as commerce, agriculture, light industry etc. on a small scale. There is no reason to suppose, in this respect, that undesirable land use activities could be encouraged in residential areas if this approach was adopted. It is known, to the contrary, that the Party which is already a well-established regulatory body in almost all residential areas would control unacceptable activities.

D. Hierarchical Organisation and Social Cohesion

Through the Party, a hierarchical pattern for the organisation of residential areas, which is not the stereotyped imitation of Western planning standards, has emerged from squatter areas. It is based on traditional village organisation, but has great potential for the design of urban housing. Its features are:

¹² This number coincides with the group size for convenient location of stand pipes, collection of rent and political organisation.

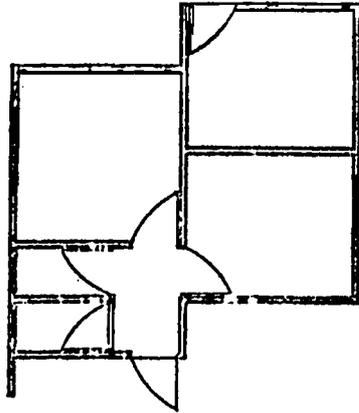
1. 16-25 Families grouped around a focal point, e.g., a well or open space or shop.
(A U.N.I.P.¹³ Section)
2. 200 Families grouped around a bar or butcher's shop.
(A U.N.I.P. Branch)
3. 2,000 Families grouped around a self-help school, or self-help clinic or market.
(A U.N.I.P. Constituency)

Amazingly in many squatter areas which were used as test cases, this kind of hierarchical structure has had clear cut functions, boundaries and levels of cooperation. One major conclusion which has emerged from these urban studies in Lusaka is that it was not possible to get clearly defined levels of cooperation and responsibilities in local authority areas designed on the basis of western planning principles.

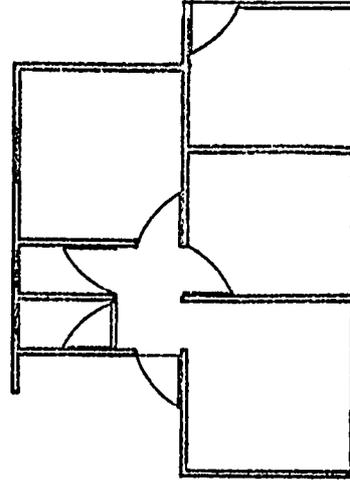
V. CONCLUSION

In conclusion, it should be emphasised that in Zambia we are witnessing an evolution in the life styles of the urban residents. The dynamism of such changes is giving shape to design aspects which are truly unique. A better understanding of these changes could lead to the evolution of methodologies which would enrich the post-colonial era in the design standards for housing the lower-income families.

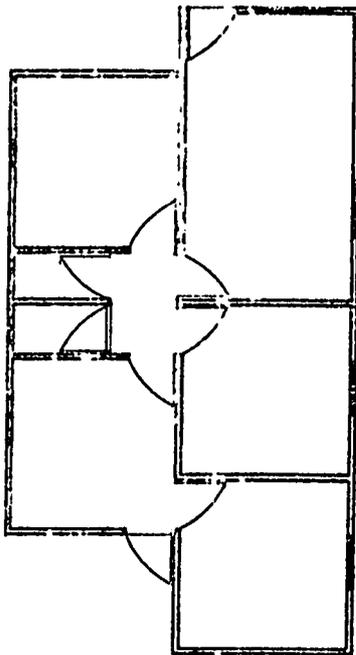
¹³ The United National Independence Party.



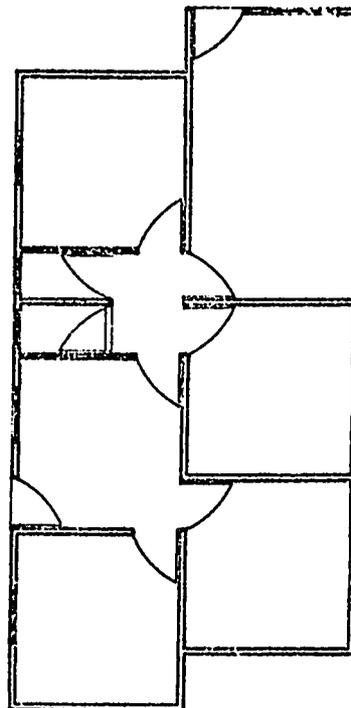
Stage 1



Stage 2

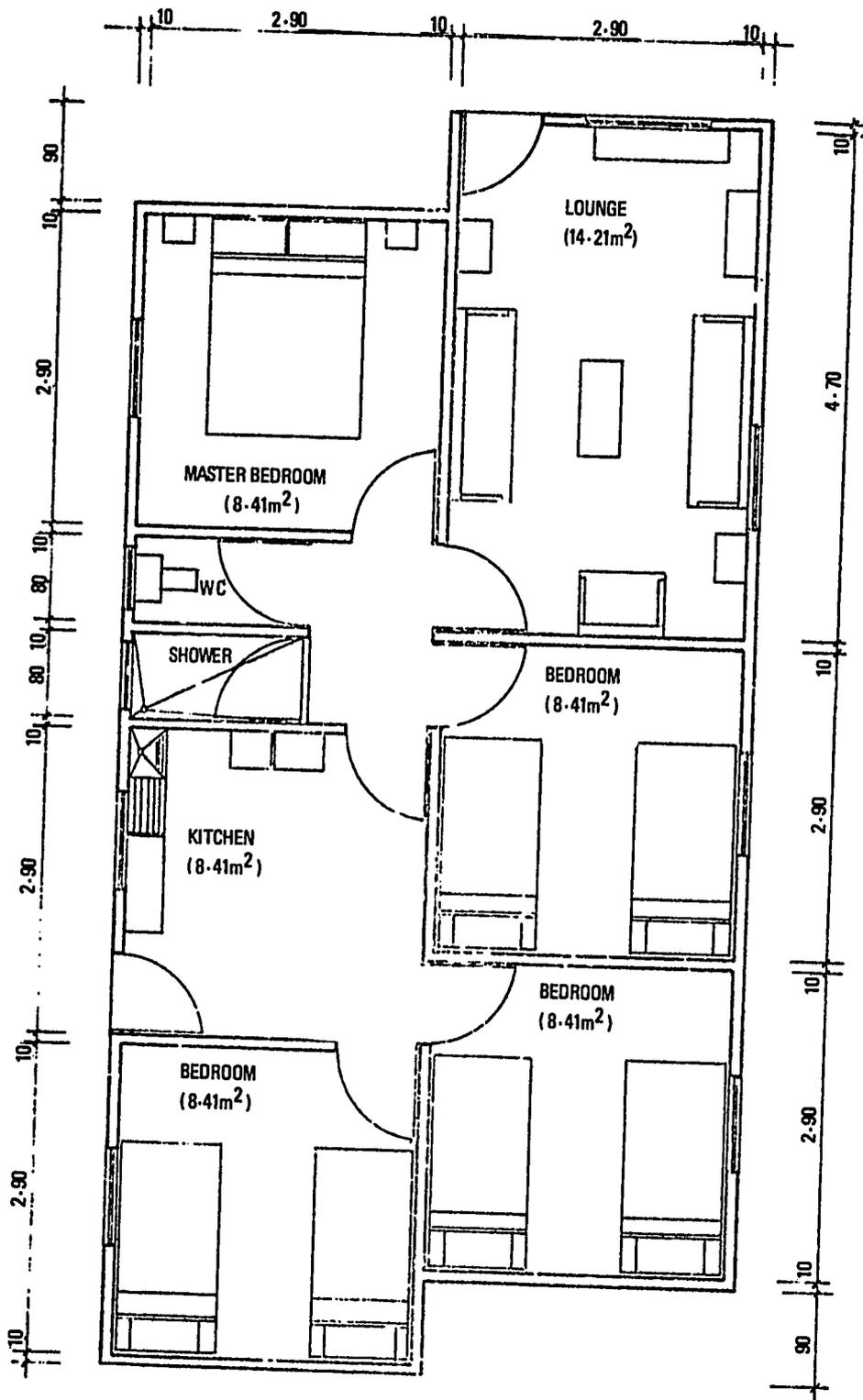


Stage 3

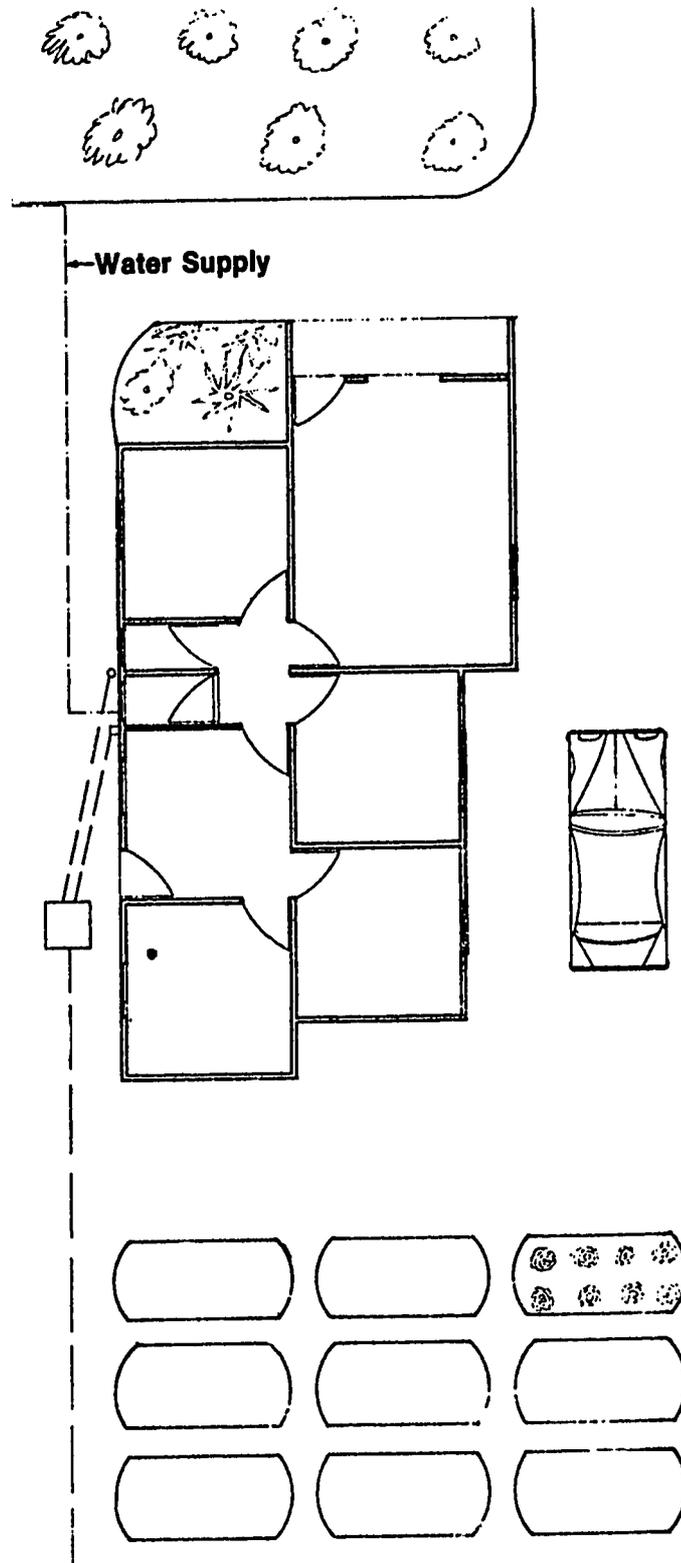


Stage 4

Development of Houses in Stages



Dimensions & Furnishing Plan



Plot Layout & House Stage 5

TECHNICAL ASPECTS OF PROPOSED LOW-COST AND VERY LOW-COST HOUSING

J. Konan-Ferrand, Director General, SICOI, Ivory Coast

I. INTRODUCTORY REMARKS

What is the aim of technical research on proposed housing designed for low-income persons?
It is to arrive at an affordable rental or sale price.

Since rent is in the first place proportional in every respect to construction cost, the desired goal is to be able to minimize the building's cost as much as possible while complying with standards of stability, space and habitability. The problem is quite complex because everyone knows that it is easier to build extravagantly than to build economically.

A second factor affecting rent is the cost of maintaining the dwelling in good repair.

Setting aside financing problems and the infrastructure of building sites, the study of proposed low-cost or very low-cost housing is going to be essentially guided by those two considerations.

The elements of solutions found to date by SICOI are set forth below.

II. THE PARTS OF A BUILDING

Irrespective of the expense involved, a building must necessarily include:

- A. A structure composed of:
 - 1. Foundations,
 - 2. Vertical supports,
 - 3. Flooring, walls and roof;
- B. Doors and windows with woodwork and hardware;
- C. Plumbing and sanitary fixtures;
- D. Electrical installations;
- E. Painting and glazing;
- F. Miscellaneous fittings such as gas installations, telephone, elevators, etc.

All the items listed give the total construction cost. SICOI has used several approaches to cut construction cost:

Structure

Technical solutions making it possible to reduce the quantities of materials;

Rational use of materials avoiding losses and waste;

Elimination of nonessential elements.

Woodwork

Standard windows and doors;

Combination of types of openings;

Use of durable materials that permit easy and inexpensive maintenance;

Use of inexpensive hardware and metalwork.

Plumbing

Installation of strictly essential fixtures with shortened pipes and drains.

Electrical installation

Minimum number of lighting outlets with reduced feeder wiring.

Finishing, painting

Use of very inexpensive products.

III. ANALYSIS OF TECHNICAL SOLUTIONS ADOPTED BY SICOGI

A. General Concept

Low-cost and very low-cost housing generally involves a single-story design for two basic reasons: simplification of the structure and hence a low-cost price and practical arrangements adapted to life in the Ivory Coast.

Consequently, our low-cost housing includes private family quarters and a communal area with outdoor patio opening to the kitchen, baths and service areas. This is the women's and children's living area and where visitors are received during the day.

B. Structure

1. Foundations

The foundations consist of 20 cm x 40 cm concrete footings under the load-bearing walls, two rows of cement-filled concrete blocks measuring 10 x 20 x 40 cm and a layer of slightly reinforced concrete 8 cm thick. [Text missing] . . . for sloping sites, graded foundations, sometimes following the incline to avoid filling.

2. Flooring

Floors are concrete, 8 cm-thick, poured directly on 20 cm-thick compacted lateritic gravel. The coating which forms the finished floor is mixed directly with this concrete and smoothed after pouring. There is no additional floor coating.

3. Walls

Load-bearing walls and exterior walls are built of hollow concrete blocks measuring 10 x 20 x 40 cm. The partitions are also blocks of the same dimensions, or 10 x 20 x 40 cm.

4. Window and Door Frames

The door and window lintels are concrete with very little reinforcement. The frames are formed by special blocks. Some of the reinforcing rods are left protruding to attach framing.

5. Framing, Roofing

The roof is composed of a framework principally formed by 150 x 60 mm wood planks resting on load-bearing cross walls and of 6/10 to 5/10 mm thick aluminium or galvanized steel roofing.

The load-bearing walls are carefully tied to the room dimension to avoid trusses and long lengths of planks.

To avoid ridge poles which are often costly and sources of leaks, the building is designed so as to use only roofing of a uniform length giving singleslope or arched roofs.

C. Woodwork

Woodwork dimensions are standardized to permit the use of ready-made parts. The dimensions of the interior doors are as follows:

Unframed	83 x 218 cm
Fitted	73 x 213 cm

Exterior doors:

Unframed	93 x 218 cm
Fitted	83 x 213 cm

Windows:

Unframed	90 x 127 cm
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The materials used are native wood.

Windows are persiennes of wood or in a Naco frame. Naco slats are in wood or plastic for easy maintenance.

Interior woodwork includes flush doors; these are eliminated in very low-cost housing. Since the openings are in place, the occupant will be able to install doors later at his own expense.

Doors opening onto the service areas are combined with frames in order to reduce costs.

D. Plumbing, Sanitary Fixtures

Here savings lie in providing truly essential fixtures. The kitchen has a faucet and a ground drain. The shower is installed in the same place as the Turkish-style toilet in such a way that the waste water from the shower can be evacuated by the toilet.

E. Electrical Installations

Each room has a wooden panel containing a socket for a 60 watt bulb, a switch and a 10A plug.

F. Finishing Work

1. Wall Finishes

The cement stucco coats are reduced on the interior walls to a thickness of 5 mm (micro coating) instead of 15 mm. Furthermore, by completely trimming the blocks' jointing, the coat on one side of the interior walls can be eliminated.

Smooth surfaces are used instead of tile or other facings on the walls of rooms with running water.

On exterior walls the stucco is dyed in bulk to cut paint coats.

2. Ceilings

Thick plywood ceilings of 5 mm are used in low-cost housing to avoid the waste of using the standard dimensions of commercially available ceiling panels.

In very low-cost housing, the reflecting properties of aluminum make it possible to eliminate ceilings.

G. Paints

Only very inexpensive products such as whitewash for all walls are used. Only a single coat of glycerophthalic paint is used on woodwork over a base coat of regular oil paint.

Since painted woodwork deteriorates rapidly, plastic persiennes are widely used to reduce maintenance costs. The Ivory Coast climate is so humid that woodwork must be repainted every three years to prevent rotting.

IV. CONCLUSION

SICOGI's technical research on low-cost housing has been directed towards a reduction in service charges. Housing must not be static, in other words, the occupant should be able to improve his dwelling as his financial means permit. In all cases the desired goal has been more or less reached. Consequently, the current rent of 4,500 CFA francs for two-room dwellings is consistent with Ivoirians' minimum income which is currently 19,000 CFA francs per month.

We do not believe that it will be possible to further reduce amenities. Our research to pare construction cost is now going to turn to the choice of materials and their use. We are also going to examine prefabrication methods.

DISCUSSION:

A question was asked about the cost of the house described by Mr. Konan-Ferrand of the Ivory Coast. The reply was US\$64-\$80 per square meter. Later this was clarified to mean just building costs. No land or land improvements were included.

In general, the comments seemed to strongly favor low-rise over high-rise solutions for low-cost housing.

A question was also asked if the mortgage institutions would accept this minimum house (as described in the Zambian paper) as security. The answer was "yes" and that life expectancy of the house was 20 years.

Another question arose on absolute minimum number of rooms for a low-income house. Answer from Zambia was that they worked with the minimum standard of 4m² per person.



THE THIRD WORKING SESSION

Foreground left to right: Mr. M. Cissoko — Mauritania; Mr. Henry Boldrick and Mr. N'Gole Iliki — from Zaire.

FOURTH WORKING SESSION

Chairman: Paul Campbell, USA

Participants: B. Makobole, Botswana
D. Richardson, Botswana
P. A. Tarimo, Tanzania

Presentation of Paper by Paul Campbell

Presentation of Paper by B. Makobole

Remarks by P. A. Tarimo

Discussion

COMMUNITY PARTICIPATION IN LOW-COST HOUSING PROJECTS

By Paul Campbell, Housing Consultant, FCH Services, Inc., USA

I. BACKGROUND AGAINST WHICH COMMUNITY PARTICIPATION IS ANALYZED

Ever since low-cost housing has absorbed the attention of governments and others as a planned and organized shelter solution for low-income families living in substandard housing, there has been a strong school of thought which has advocated active resident participation as a necessary component--for social reasons.

Not all housing officials, especially in early periods, held that social interest was a concern in providing adequate shelter, except as a normal social consequence of physical improvements. Nevertheless, the concept that "housing is more than shelter" gradually expanded to the point where, today, there is general recognition, albeit a token recognition in some cases, that the aspect of community participation belongs in the planning of low-cost projects.

The critical point lies, however, in what comprises community participation. What is its purpose? What is its effectiveness upon program goals? For example, a sponsor's plan consisting of a chart of community objectives and courses of action handed over to project residents simultaneously with the sponsor's departure from the scene with a "parental" blessing will have no chance of implementation by families with little previous experience in self-organization, self-determination or self-reliance. A flurry of "busy work" just to show activity and to keep people occupied proves to be ineffective participation. An extreme example, but equally unproductive, is the highly idealistic social action and community activities program planned without provision for funding which has little chance for economic sustainment and which could, if attempts are made by the community to fund it, result in economic hardship. Social calisthenics are not a justification of community participation.

From past experiences, and especially through the nature and qualities of constraints which have evolved, certain principles of community participation become identifiable. In a like manner, planning for community participation is seen as entering not only into social planning but into the physical and economic considerations and plans for the project.

A. Principles

1. Within any given low-cost housing program, community participation must have a definite purpose and scope, its precise meaning to be ascribed by the primary goals of the program.

Within this context, the role or roles which community participation is intended to fill are made specific; the subobjectives which it is intended to achieve are made clear; and the estimated costs in funding must be reliably forecast. Participation is treated as a measurable resource which is budgeted. Granted, numerous variables will present themselves, and adjustments will need to be made as conditions change. However, known factors are used to provide a planning basis to the degree and type of participation called for within program goals.

2. Physically, a housing project creates a social entity within which certain new forms of interpersonal relationships, conflicts and cohesions appear, constituting resident participation, be it rational or irrational, organized or unorganized.

We must realize that by creating a project, especially the settling of it with people having similar goals, hopes and aspirations, an environment is created for people to become involved. The challenge issued to housing professionals is to identify indigenous social groups, to understand their cultural relationships and to integrate these groups into a complete social system.

The need is seen as solving through cooperation the various limitations which man and his environs may have. The attainment of cultural relationships is strongly enhanced by (a) effective communication among groups and individuals, and (b) a willingness to contribute toward achievement of a common goal.

In brief, this principle tells us that, formally or informally, organized behaviour is an instinctive element of participation in housing projects. The quality of organization and where it will lead, like the purpose of participation, also takes shape from program goals.

Goal attainment in a low-cost housing project incorporates such components as people, materials, machines, facilities, information flow, authority and decision-making and other organizational processes. Of these, "people" represents the most significant factor. Not only are people the direct beneficiaries of the program, but they should be, and can be, as members of the new societal entity, the principal action agents.

3. Recognizing that (a) housing achievements depend upon the human element, and (b) each human being makes use of a relatively low percentage of his potential, acceptance of the inevitability of community participation implies an actuating responsibility toward higher attainment.

It has been stated many times that "housing is people." This is but a simplification of the fact that every relationship, every problem and every decision involves the human element. Our third principle relates to putting or moving people into action. It includes striving for fuller measures of energy, enthusiasm and abilities toward given objectives.

Psychologists say that none of us actually perform to anywhere near our capacity. In a housing project wherein individuals are aroused to broader horizons, the multiplied result of many increased individual potentials can be amazing. Within different cultures, there are effective tools of actuating people, such as treating them as human beings, encouraging their growth and development, giving recognition to their achievements, emphasizing fairness and impartiality in dealing with them, and even giving them a challenge to meet.

However, in spite of applied actuating efforts, we can count upon very limited goal attainment unless the program goals are in close harmony with the self-made goals of the people involved. The personal goals and the human wants of project residents are far more real to them than the attainment of program goals.

Preliminary sociological/economic/physical studies among the population segment intended to be served provide the information for setting primary goals. They may show the need for modification of preconceived goals to more realistic program goals.

After goal setting, presumably in alignment with future participant objectives, the goals and their rationale should be interpreted to tentatively approved project participants in preoccupancy orientation meetings. Such exercises, among other things, provide the opportunity for any who find the program objectives inconsistent with their personal objectives to either modify their own objectives through their own personal adjustment or to decline further participation in the program. The related principle is:

4. Predetermined primary goals of the housing program and the personal goals of the residents must exist in harmony and mutual understanding for realistic actuating in symmetrical courses of community action.

The final principle we shall consider relates to economic effect through participation. It takes its origin from the term "low cost" rather than from the word "participation," in our subject of discussion; although it applies the fullest measure of community participation.

Costs are crucial in low-cost housing. The dilemma that is ever present is: Who will bear the costs, the sponsor or the beneficiary? In accepting that a human element is present and in need of attention, guidance and motivation, an organization is called for, control considerations are demanded of actions, and new dimensions are introduced, each of which involves cost. The concern is to control costs, because sponsors have little extra money to subsidize costs, oftentimes borrowing the funds just to build the project dwellings. Beneficiaries must qualify as being of low income before they can participate in the project.

Low-cost housing, with its focus upon the human element rather than upon profit or gain, eliminates itself as a borrowing risk beyond that of the collateral of the dwellings and land. One way to meet costs is to increase income sources. However, generally, as we have just seen, neither sponsors nor beneficiaries are able to generate a greater contribution to project costs. The other is to make do with what one has.

5. Community participation must embrace the concept of learning to do for oneself--followed by the actual doing--to reduce or eliminate depending upon outside resources.

This far-reaching economic principle of self-help and self-support is reckoned in each and every supporting objective applied to goal achievement through participation. It must apply to planning, which helps people to put together the right combinations of activities. It involves an organization made effective because people adopt it in order to work together. It entails control in order to help people reach their goals competently. Above all, it summons up the expansion for the human potential.

Dare this principle be so bold as to attempt to support a policy of avoiding, or at least of strictly limiting, subsidy support?

B. Community Participation as an Economic and Physical Planning Consideration.

1. We are all familiar with the extraordinary growth rate in urban centers and the resultant high land costs, influenced largely by supply and demand. The closely related problem of increases in costs of building materials and construction labor joins with land costs to compel housing solutions of higher and higher densities. The direction may be perpendicular, horizontal, or both. Whichever is selected as the best alternative, the consequences of high density remain to be faced.

In older, large cities of the world high density is not new. What is new is the fundamental exhortation that human decency commands a certain minimum acknowledgement of an individual's needs of light, air and space. Nor is this the only challenge faced by the design technician. Basic amenities of water, hygienic sanitation, rational pedestrian and vehicular traffic flows and electricity become pertinent considerations. Resources for health care, education and recreation ask for recognition, and high density situations connote both indoor and outdoor common spaces as replacement channels for psychological needs.

The design technician's challenge is compounded by (a) the meeting of minimum limits in human decency in habitation, (b) the supply of basic amenities in services, (c) the provision of the community facilities and space within which community participation can function, and (d) the need to determine project sizes conducive to organized structure within which people can effectively work together in a given culture. This scope implies an optimum in relationships that allows for a mutual dependency of members of the community upon one another to be welded into a community unit for teamwork. For example, it is possible to design for a village atmosphere within an urban setting where individual neighborliness, individual contributions and individual needs are valid everyday considerations--all within a strong community force of democratic consensus.

2. Should one of the primary objectives of the program be to sell or rent the units at a monthly carrying charge the beneficiaries can afford to pay, the financial planning will need to consider the depth and reliability of community participation as an alternative to cash expenditure, both as to physical plant and as to running costs.

The design planner will test and try alternative solutions against program standards to make the match with "ability to pay." Human needs are considered, and human effort potentials in self-help must be carefully evaluated.

There are, however, ongoing costs apart from capital costs with which to reckon in the financial plans for a low-cost project. There are administrative expenses which are often absorbed within the sponsor's institutional budget. Positive expenses dealing with the spectrum of community participation can be considerable.

It becomes necessary to know what items of action can never be met except through paid skills. On the other hand, we must know those items which are readily tractable to self-doing. It is the large area in between that merits the close attention of housing planners. In this sector, the approach taken toward community participation can have positive influences on costs. Far more results are possible than have ever been imagined, especially when the link of "depending upon a patron," governmental or otherwise, is severed.

II. APPLIED COMMUNITY PARTICIPATION

Theoretically, the subject of community participation comprises a number of complexities, simply because we are dealing with human concepts. In practical application, where our concern is, the result of our efforts through human efforts, through tools of organization, manageable units and control, the issue is not one of complexity, but one of scope. The range of possibilities is so extensive that detailed discussion of each potential role within the subject would run into a voluminous study. Instead, we will consider a series of capsule precepts, observations and concepts which one can evaluate and enlarge upon within one's own housing context, as judged to be appropriate.

A. The Meaning and Scope of Community Participation

1. As to the term "community participation," it is seen as the mental, emotional, physical and financial involvement of a project resident to make contributions to community goals and to assume his or her own share of responsibility for them.

In this context, "community" is synonymous with "project," not, then, referring to the broader geographic delineation, nor to the broader sociological connotation, except as it might apply in miniature form to the specific project instance. The meaning refers to residents (project participants) doing things, rather than sitting back and having things done for them.

2. Community participation is not social rehabilitation. It assumes existing competence of some type in each human being, even though it might be suffering from solid dormancy because the occasion for arousal was never strong.

It is not community development; although some aspects of it will result in certain forms of community development, and the general basic concepts appear to be similar. It involves a much more direct attempt to satisfy individual needs through in-depth individual contributions distilled in the vat of common goals, common beliefs and common motivations. It is more a development of teamwork among individuals than the development of a partnership of community representatives with a governmental authority. In a specific form, and in the early stages of community participation, a relationship does prevail, but within a firm schedule for tailing it off.

3. The integration of individual efforts into a smooth working group signifies an important and successful transition from centering one's attention upon "me" to wholehearted accepting "we" as the most effective course for the satisfaction of needs.

The consequence, worthy of note, is that the summation of actions of individuals in this integration does not add up to the sum-total of the separate parts. *A new group entity, in its own right, comes into being.*

4. Participation, in this context, does not imply coercion. In recognition of an individual's rights and freedoms, any resident wishing to abide alone, privately, without involving himself or herself in community participation, must have his or her rights respected. The incidence of this is, generally, very minimal, since nearly all humans are endowed with a gregarious quality that makes it natural to want to do things with others. The solution to the voluntary subscription of one's resources lies in the power of appeal--of logical and attainable goals, of rational avenues--to want satisfactions, and of wide-range opportunities to engage in the satisfaction of personal psychological needs.

5. Community participation range:

- Building all or part of the dwelling with self-help labor.
- Constructing parts of the site infrastructure, i.e., trenching; water or sewer lines; storm water swales, guttering or culverts; grading roadways and grading and laying walkways.
- Constructing a community facility such as a community-use building; a school building; a church; a market shed, or a store; a post office and a playing field, playgrounds and equipment.
- Planting of roadside and other shade trees; plantings of shrubbery on common areas; creation of garden lots and stimulating home plantings.
- Conducting periodic cleanup campaigns; establishing personal responsibilities in proper handling of garbage, trash, litter and pocket trash.
- Establishing a part-time health clinic in the community building.
- Staffing and operating a day care center for working mothers.
- Establishing a community newspaper and library.
- Assuring the provision of schooling for all project children.
- Creating community activities through mens' clubs, womens' clubs, youth centers, sports, youth bands, choral groups, native dance groups, movies, plays, dances, cultural and handicraft pursuits for individual satisfactions, communitywide programs for special occasions and just for fun and relaxation.
- Arranging for periodic classroom-type education in job skills, literacy and arithmetic, family budgeting and purchasing, garment making and repair, furniture making and repair, house maintenance, home hygiene and home safety precautions, nutrition and meals.
- Forming and operating a credit union.
- Forming and operating buying clubs; a consumer's cooperative.
- Promoting a producer's cooperative, involving cottage industry-type products.
- Establishing a communitywide, responsible system of fund raising undertakings to support community actions and the effecting of reliable controls over community funds.
- Accepting community rules and regulations as recognized group controls of majority consensus, the effecting of peer jurisdiction, and
- Eventually accepting (1) complete self-management of project operations and (2) complete self-government of community actions.

Doing things requires money in varying degrees. Monetary constraint prescribes the use of very careful selectivity and studied priorities.

Institutions and organizations dedicated to specific services for people, particularly education, training and health, will respond more readily when a community-supported proposal comprises a selective, purposeful program of definite objective. To see one doing all one can to help oneself generally attracts a helpful response from another qualified to lend a hand.

B. Planning and Programming

1. As we have seen, the primary goals, supported by specific sub-objectives, are a prerequisite to determining courses of action in community participation. They continue through the function of control as long as they remain valid.
2. In the later development of sub-objectives and later implementations under fuller measures of self-government and self-controls, independent decision-making must be checked against working at cross-purposes to established concepts. A constitution, or set of bylaws, is needed as a guide to what can be and what cannot be done.
3. The critical issue is to lay the right plans of implementation and effective means of communication to support implementation. Plans will involve: leading, teaching, guiding, motivating and controlling. Plans will need to form and establish the organization within which the implementation of plans will take place.
4. Original authority for program and decision-making rests with the sponsoring institution by virtue of being the introducer and the owner. Not only is the "right" to act present, but the "responsibility" to act is incumbent. Acceptance of participation as a viable concept tells us that the way to compliance is through persuasion, teaching, guiding and requesting rather than by autocracy, coercion, or constraint.

The concept advocated through this paper is the eventual complete transfer of authority to the participants as a duly-constituted body. Transitional stages will be indicated by the degree of competence demonstrated in the disposition of prior responsibilities which accompanied prior authority transfer.

5. There are expenses in teaching inexperienced persons how to run their own affairs, which command careful projection within financial budgeting of program costs. Since this expenditure is not recoverable, it represents subsidy input. Its progressive arrest becomes a prime financial objective, leading to a relatively inexpensive state of monitoring the performance of the learners.
6. Teaching self-reliance and eventual self-determination is not particularly dependent upon the educational background of the learners, but rather on human qualities of good judgment and discernment and on attributes of fairness, kindness and unselfishness.

By planning the implementation to start modestly, in areas of activity and responsibility best known to the learners, first achievements produce self-confidence and start the growth process. New and more comprehensive responsibilities are faced, less by impending alarm than as a challenge.

While a wide range of communication techniques are needed, preponderate use of the face-to-face method will provide the best support to the implementation of plans.

7. The first project or projects in a planned elimination of nearly all subsidy through the help of community participation can become a useful prototype for repetition--at lowered priming subsidy. The example proves useful. Of greater value is the word-of-mouth advice of experienced participators to selectees for new projects.
8. Controls undergo a companion transition to that of authority. Eventual peer control, making use of social pressures can replace the need for the administrative control function. It is desirable that the latter remains quietly in the background, cloaked in a monitoring authority, to emerge only in the event of flagrant deviation in performance.

C. Organization

1. The community organization will become, in itself, a living entity, capable of handling change. In fact, dynamic growth changes is what community participation is all about. The human element, collected and aroused, can become a dynamic force. This potential state makes it incumbent upon the sponsor to create and nurture a solid structural organization desirous and equipped to move in respective directions of goals achievement.
2. The total task, the sum of all participation objectives, needs to be divided into workable units. In low-cost housing, one natural unit is that of a committee of residents, assigned to a specific task of a given scope.

Some prefer the geographic division of families, or the numerical division for judicial control over behavior, as the unit breakdown. Each, while affording the convenience of workable units, lacks the specific task responsibility of a specific share in advancement toward a definite objective. Our prime interest is accountability with respect to getting things done, not with a more authoritative control over behavior.

3. The committee unit of the organizational structure provides a working atmosphere in which the individual can feel comfortable in knowing that his or her contribution and his or her opinion receives recognition. It is in the committee that various actuating forces meet up with individual needs.
4. Committees do not stand alone. They are units of a structural pyramid--composed completely of residents--from which committee authority and specific functions are derived and to which findings and actions are reported.
5. The community organization must automatically include the right of participation to each resident family on an equal basis and, as a minimum, must include the right of expression through voice and vote. Political, religious, racial or class bias, through education about--and a clear understanding of--unified group objectives, tend to undergo a slow process of personal subordination.
6. The organization requires one head, even though that head may be comprised of a workable body of elected leaders serving as a board of directors. The individuals have authority and responsibility only while sitting as a team, constituting the singular head.
7. The board will need professional competence to execute its plans and policies in intimate detail. At the outset, the sponsor provides this professional service which constitutes a subsidy input. It is used to (a) protect the capital investment interests during the formative period, (b) establish sound management practices, and see that

they solidify patterns of direction toward goal attainment and (c) teach, guide and lead the organization through its progressive stages toward the earliest possible arrival at the end of official administration and subsidy support, spelling complete group self-reliance and self-support.

8. The ultimate authority for all participatory actions of resident families must rest with those families--but only when sitting together in duly constituted assembly functioning through equality and democracy and under a policy of "full disclosure."
9. Those familiar with the classical form of housing cooperatives will recognize its ingredients in many of the points raised in this exposition. The cooperative housing system affords a neat package of the vital and dynamic components needed for effective and reliable results in community participation.

Mr. Charles Dean was unable to attend the Conference but submitted the following paper which is included for review by the delegates.

THE SHELTER PROBLEM OF LOWER-INCOME GROUPS AND THE APPLICATION OF COOPERATIVE TECHNIQUES TO THEIR SOLUTION

By Charles Dean, Director, International Programs, FCH International, Inc., USA

I. THE SHELTER PROBLEM

Most participants in this conference are familiar with the grim statistics of the worldwide shelter problem. Briefly, the world population is now estimated at 4 billion, an increase of 1.6 billion since 1950. In the next 25 years it will reach 7.5 billion.

At present, thirty to fifty percent of the people now in urban areas of developing countries are living in inadequate, overcrowded conditions, often without minimum sanitary services. In rural areas, shelter conditions are often worse, with seventy to ninety percent lacking the minimum shelter and services for good health.

International agencies estimate the worldwide need for shelter over the next 25 years at *200 million* units.

The main problem restricting improved shelter in developing countries is that incomes are low and housing costs are high. The percent of the population unable to afford the cheapest standard house presently available in various developing countries ranges from thirty to seventy percent. Because poor people cannot afford a standard house, they continue to expand the uncontrolled squatter settlements and slums.

II. PRODUCTION OF SHELTER

Efforts by governments to produce standard housing for low-income families have generally not been successful when we consider the arithmetic of the problem. The Latin American region has had the greatest input of international and local resources into housing during the past 15 years. During the period 1960 to 1970 the total production of government-sponsored housing was about 1,000,000 units vs a need for 25,000,000 units.

Africans have built their own houses in rural areas for thousands of years, using native materials and without government help. However, as the rural to urban migration continues at an accelerating rate, the average migrant cannot solve his shelter problem within the present framework. He cannot find suitable land or materials, and sanitation problems are quite different in high-density urban areas.

The shelter aspirations of those remaining in rural areas are also changing as the relationships between inadequate shelter, sanitation and better health (and productivity) become more evident.

Throughout the world, ambitious government programs to house the poor have failed to meet their objectives. *Governments alone simply do not have the financial or administrative resources to solve the problem.*

Most of the world's housing is produced by the private sector. The *organized* private sector consists of profit-motivated developers producing standard housing for middle and upper-income families and non-profit charitable, religious, labor and cooperative organizations

producing small projects for low-income families. However, it is the *unorganized* self-help efforts of private individuals that account for the production of most of the world's shelter. Shelters built by unorganized self-help are not adequate if judged by the old standards established for "low-cost housing." However, a close look at much of the owner-built housing in most capital cities will show that it often does meet the minimum standards of its occupants. Many others could build their own adequate shelter if they had some technical and financial help. Even the worst shack of scrap lumber, paper and tin represents some investment of time and money by its owner and provides some shelter.

III. SHELTER POLICIES

We believe that government shelter policies should be directed toward providing a framework which encourages this self-help initiative by private individuals and groups. Governments should be involved in land acquisition, overall planning and control, provision of infrastructure and community services, assistance in providing credit, and encouragement of job training and job-producing activities.

Actual construction by individuals or by community organizations, such as building societies and housing cooperatives, could then be encouraged. Governments should concern themselves less with what kind of house is built and more with where the house will be built. There should be less concern with what is considered to be a minimum standard for a house and more concern with ways to encourage steady self-help improvements of shelter for those who need it most.

Many African countries have recognized the need for new approaches to the shelter problem. During the 1960's there were a number of successful "aided self-help" housing projects completed in Africa. More recently, the "minimum shelter" and "site and service" approach has been initiated in an attempt to vastly increase the number of families served by the limited resources available.

IV. IDENTIFICATION OF TARGET INCOME GROUPS

A basic first step in developing a response to the shelter problem is to prepare an analysis of the national income distribution pattern and then relate it to shelter needs. Figure 1 gives an example of this approach in the country of El Salvador. (We recognize that individual countries may vary considerably from Figure 1; however, the general "curve" for urban and rural income is remarkably similar in many developing countries.)

From the chart we can see that 50% of the urban population has monthly income of less than US\$92. Family budget information indicated that these families can afford a monthly housing payment of about US\$15, which is sufficient to amortize a mortgage on a house of US\$1625 (assuming terms of 9½% for 25 years).

If a government decides that its major effort should be to help improve shelter for middle and low-income families, then it must resolve the following question. Should we build complete standard houses for a few families and subsidize the difference between what they can pay and the cost of the units? Or should we attempt to provide land, utilities and some minimum shelter or "core" houses for many, which can be improved and expanded by the owners over a period of time?

FCH strongly supports the second alternative of minimum shelter and core houses as the most effective way to help many of those who need it most. We are also in favor of programs to provide credit for home improvement of existing housing. Several examples of minimum shelter and self-help cooperative programs are shown in Attachment A.

ABILITY TO PAY VS HOUSE PRICE

EXAMPLE

EL SALVADOR FAMILY INCOME AND HOUSING

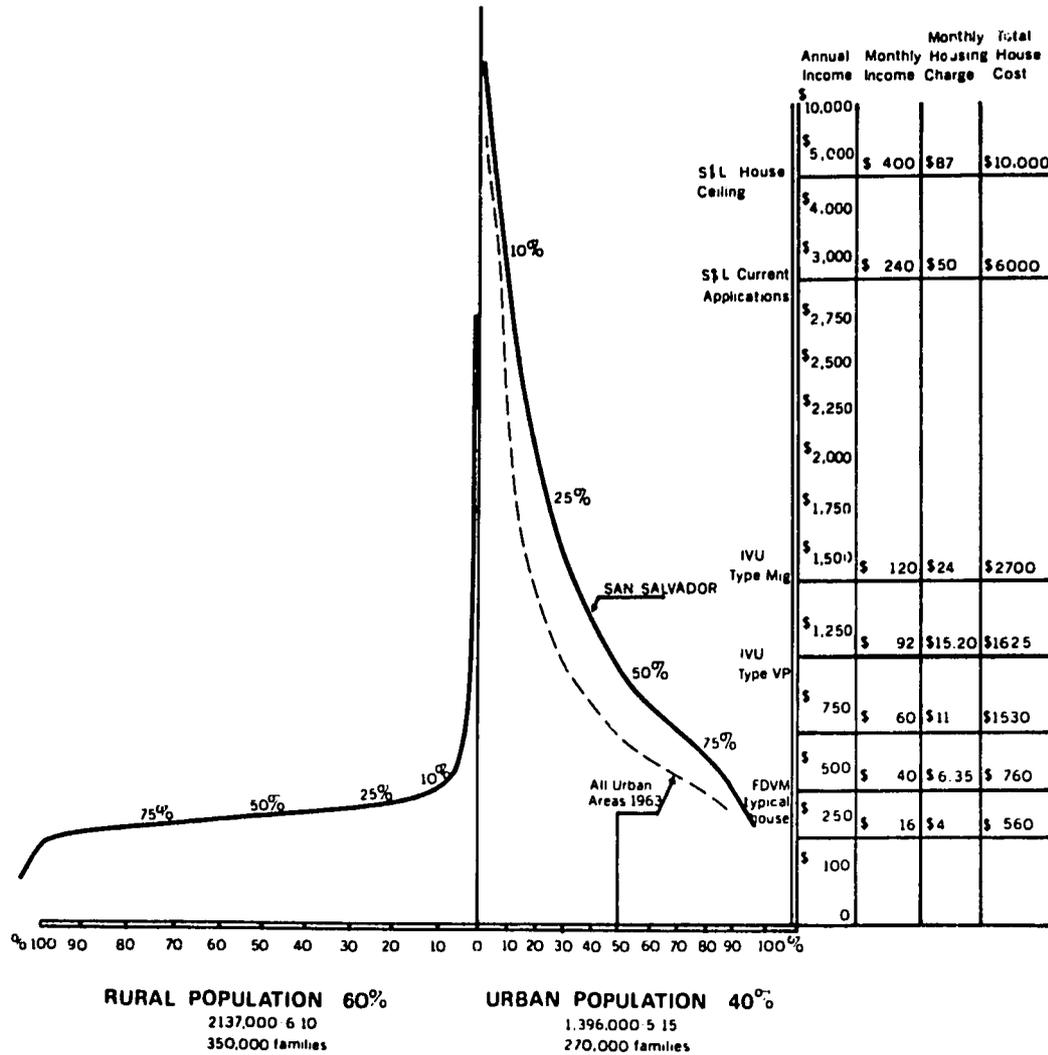


Figure 1

The problem is that in El Salvador it is not possible to build a complete house of standard materials for US\$1625.

A standard, complete house in El Salvador has a minimum cost of US\$6,000. From the chart in Figure 1, we see that only 10% of the urban population can afford such a house. In rural areas, we see that less than 1% of the population can afford "standard housing."

Many countries in Africa have similar patterns of income distribution, and the cost of building complete standard housing is even higher. Each government must establish its own priorities and national housing goals. Certainly, no one approach will be sufficient in any country. However, preparation of a chart similar to that shown in Figure 1 can be helpful in selecting target groups for several complementary shelter programs.

Figure 2 illustrates the relationship of several different housing efforts directed at selected target groups.

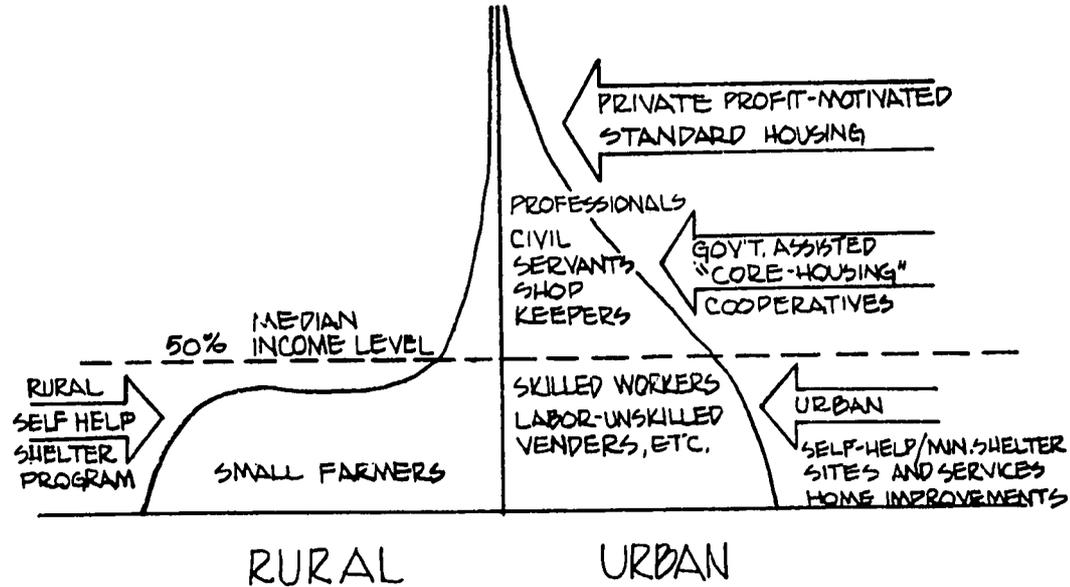


Figure 2

V. ROLE OF COOPERATIVES IN MINIMUM SHELTER PROGRAMS

In recent years, the international institutions interested in shelter (World Bank, United Nations, AID, IDB, OAS) have all recognized the need for shifting from the traditional standard house approach to site and services and minimum shelter programs. Some of the new projects under these programs are nearing completion, and others are under construction. These efforts are an important step in the right direction, but many of the chronic problems that have beset traditional low-cost housing projects have not been solved and will become evident in the new programs as well. A few of the major areas of difficulty are these:

A. Low Level of Production Compared to Total Need

National development policies, land tenure systems, financial mechanisms, and many other basic elements of shelter production must be harmoniously mobilized to try to meet the enormous need for housing units. Comprehensive and integrated planning is necessary to achieve this objective.

B. Poor Maintenance of Completed Projects

Adequate provisions for the management and maintenance of housing projects are too seldom made in the planning and development stages. This is an especially important matter in connection with housing that is destined for use by recent migrants from rural to urban areas who are confronted with a great number of new conditions and circumstances requiring substantial changes in their living habits.

C. High Delinquency Rates on Monthly Payments

Inadequate or non-existent provisions for the education and preparation of the beneficiaries of low-cost housing programs often lead to repayment difficulties. In many instances, this problem is compounded by the absence of an effective mechanism for collection of payments.

D. Lack of Credit for Home Improvement

Very few housing programs are designed with provision for lines of credit to individual home owners who want to improve or expand their dwellings. This fact limits the flexibility of the housing provided and contributes to the continuing dependence of poor families on costly short-term loans that are usually available from local lenders only at extremely high rates of interest. Housing is the largest single investment of low-income families, and their ability to improve their home is a significant form of savings and potential earnings for them.

E. Lack of Community Services

New housing programs for low-income families are usually located at some distance from urban centers and their various community services. Careful planning of the housing programs in the early stages can help make these services available to the residents, to improve the overall quality of life in the housing project. This is an important factor in encouraging families to maintain and seek to improve their homes and their communities.

F. Speculation by Local Entrepreneurs

This problem can appear in many forms; land, loans, construction materials, potable water, medical care and other essential goods and services can in some instances be controlled for unfair profits by suppliers. Care must be taken to assure fair access to these needed items by the residents of newly developed housing areas.

We believe that cooperative techniques can be used to help solve these problems.

Many of these problems stem from a lack of participation by the residents. Cooperative and home owner associations allow for organized, democratic participation in the decision-making process. This participation is especially important in self-help minimum shelter projects where the major responsibility for shelter construction and community improvements should be with the residents. Through cooperative-type organizations, governments can help them help themselves. They also offer a way to pass much of the responsibility for project success to the participants themselves, avoiding the old "patron" system, where poor people expect the government to do it for them because they lack the organization and resources to help themselves.

Cooperatives can help people learn to accept economic, social and civic responsibilities on an individual and collective basis. Through the cooperative, members learn to work together to achieve not only immediate material benefits in the construction or improvement of their homes, but also to reach the objective of helping each other in the achievement of a better and a more pleasant community life.

G. Cooperative Education and Training

General cooperative education and training programs can help residents of marginal communities establish a framework within which they can identify the priority needs of their community. The residents can meet these needs through appropriate community organizations.

H. Land Tenure and Speculation

Cooperatives can make an important contribution toward improving the situation of land tenure in marginal communities. By forming a cooperative, it is possible for a group to purchase land that might not ordinarily be available to individual families. In some countries, governments have made individual lots available to relocated families from marginal areas. If there are no effective restrictions on resale, a common result is that the resident family sells its lot to a local "businessman" who soon acquires several lots, which he in turn rents at high cost to poor and needy families. Cooperatives can help avoid speculation and assure that the lots continue to be available for families needing special help.

I. Savings and Credit Institutions

A surprising number of families living in marginal communities have regular income. They can be encouraged to save small amounts, especially in savings programs directed toward improving their housing situation. Cooperative credit institutions can offer a way for these families to save toward a down payment on a better home or provide a source of credit to purchase materials for self-help home improvement.

J. Production Cooperatives for Building Materials

There are several examples in Latin America where people living in marginal communities have formed cooperatives for the production of building materials. Their products have included concrete blocks, doors, window frames, roofs and tile. A complementary activity of the production cooperative can be the mass purchasing of certain materials, such as cement. This allows considerable savings when compared to similar purchases made by individual families.

K. Cooperative Techniques and Mutual Self-Help Construction

The cooperative framework offers an ideal way for families in marginal areas to improve their homes by mutual self-help. Through the cooperative, they can secure such technical services as architectural and engineering help. Larger purchases of materials and labor represent another form of economy to co-op members.

L. Cooperative Housing Management Techniques

After a group has successfully secured credit and materials and has completed construction of their homes, cooperative techniques can be effectively used in the administration of housing projects to provide maintenance of common areas and other community facilities. A cooperative can act as a collection agent, receiving money from its members and then making one monthly payment to lending institutions. This offers more security to a lender and reduces the chance of a poor repayment record that might later prevent new loans.

VI. THE NEED FOR LOCAL TECHNICAL SERVICE ORGANIZATIONS

Though recent experience has shown that cooperatives can contribute a great deal to help people of marginal areas solve their own problems, there have still been many examples of failures where the potential for success was high. *Probably the single most important reason for failure in a cooperative enterprise is the lack of a permanent local institution that can provide the competent technical skills needed for carrying out continuing cooperative programs.*

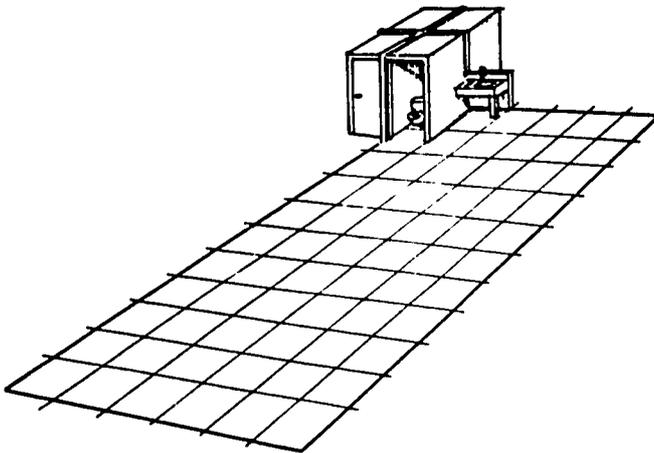
In many countries successful cooperative housing programs are now under way with the help of permanent, local technical service organizations (TSO's). TSO's are assisting in the development of cooperative housing activities by providing a broad range of skills that include legal, organizational, educational, architectural, engineering, financial and management administration. Generally, they are private, non-profit institutions, whose identity of interest is with the members of the cooperative. In other countries, government housing agencies have established special departments to carry out the TSO function.

VII. FCH EXPERIENCE WITH SELF-HELP AND MINIMUM SHELTER

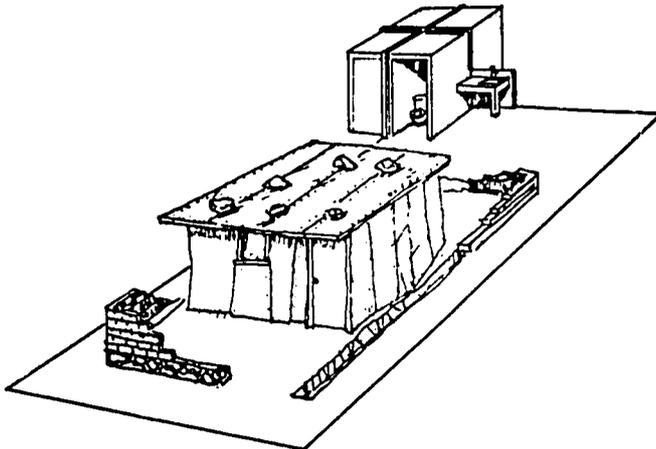
FCH has collaborated with international agencies, local governments, and cooperative groups in a wide range of self-help housing programs throughout the world, starting in 1965. The type and size of these projects has varied from small rural self-help co-ops in Panama producing housing at US\$300 to US\$1000 per unit to large-scale self-help housing urban minimum shelter projects at US\$2000 per unit.

ATTACHMENT A

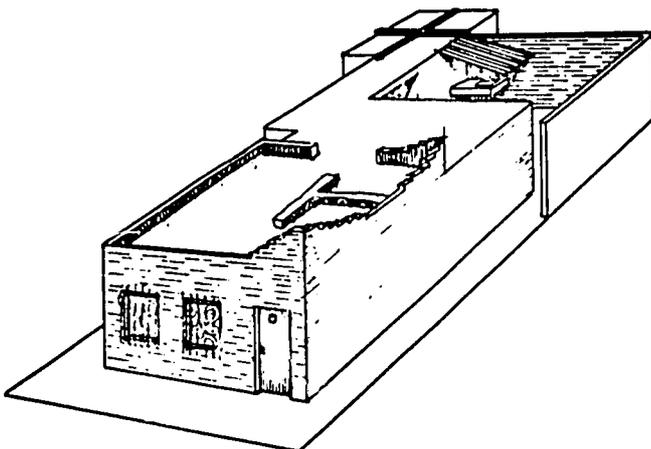
SITE AND SERVICES



STEP I – Family is provided with a lot in a planned community with minimum sanitary services. In this plan 4 sanitary units are joined at the intersection of 4 lots, minimizing costs.

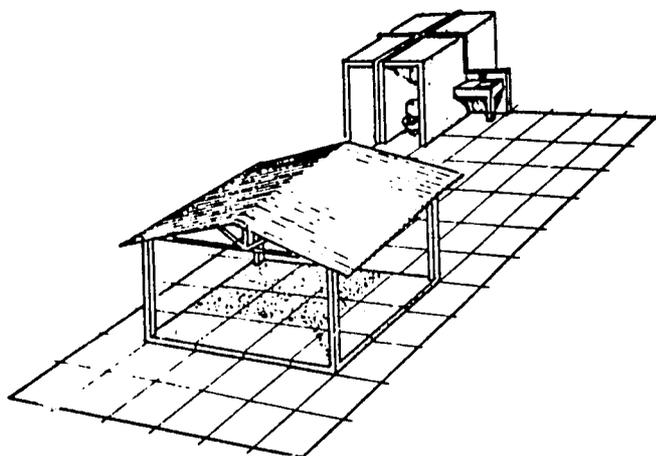


STEP II – Family may initially erect a shack from whatever materials are available.



STEP II' – As family income permits a permanent house of better materials is constructed by unaided self-help. The site and service alternative seeks to control and legalize what otherwise would occur in an uncontrolled settlement.

URBAN MINIMUM SHELTER



Shell houses completed and expanded by self-help.



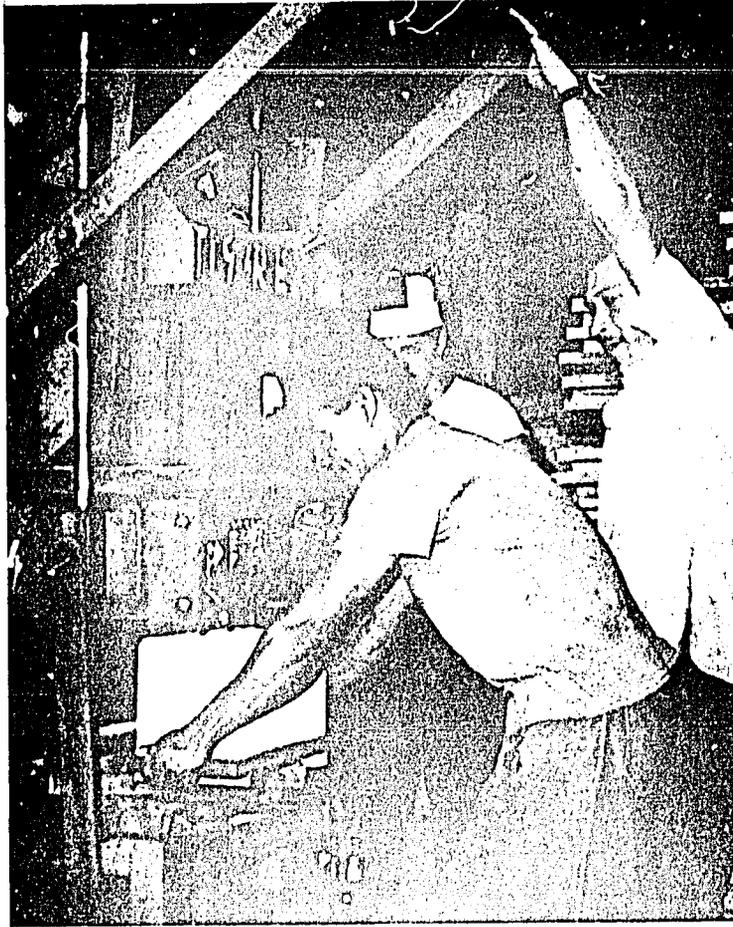
SELF-HELP HOUSING CO-OP UNDER CONSTRUCTION
AFRICA 1976



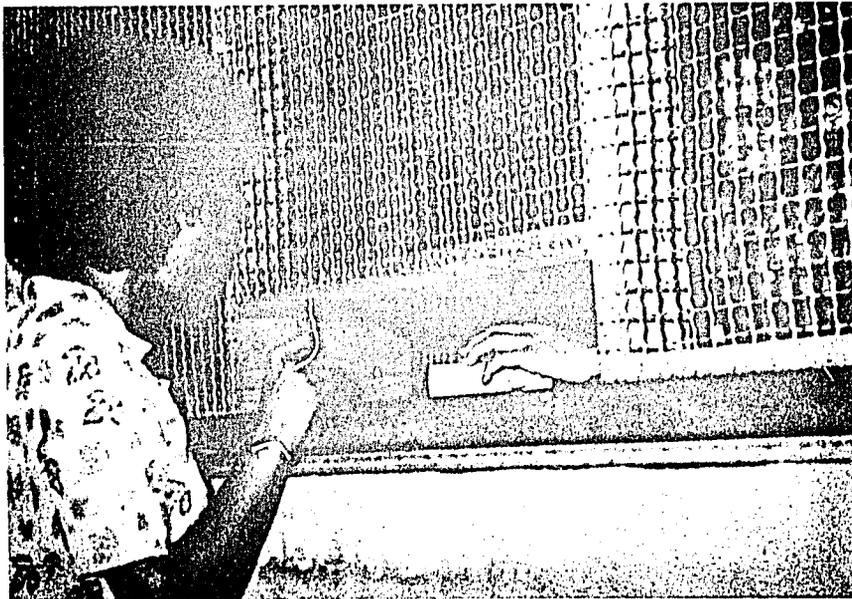
"OWNER-BUILT" AFRICAN HOUSE

1976

CREDIT FOR HOME IMPROVEMENT

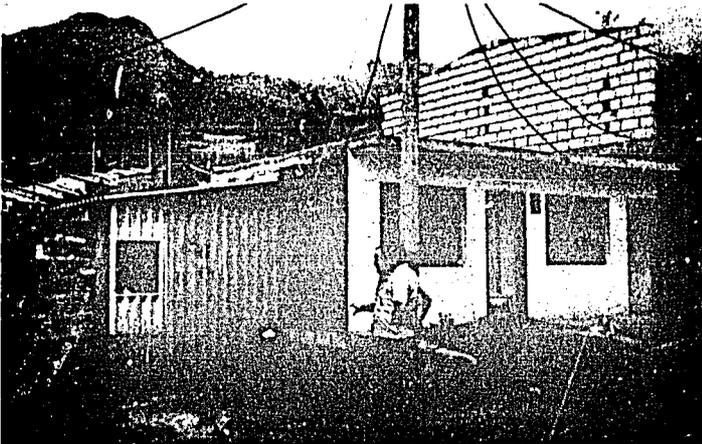
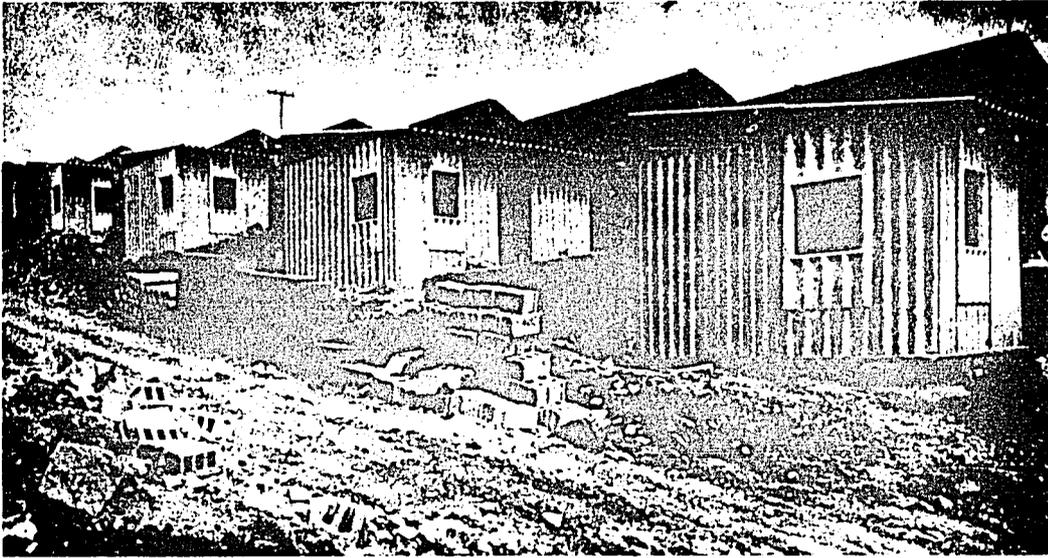


Block making can produce jobs.



Small loans are made to residents for building materials.

CORE HOUSE – MEDELLIN – 1970



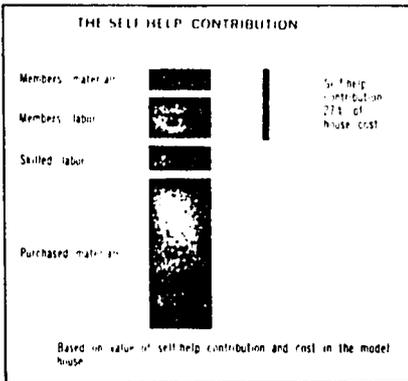
Same street 1973, showing 3 houses in second, third and fourth stages improved by self-help.

RURAL SELF-HELP

Construction Costs, Model House	
Purchased Materials	
170 4" boards @ \$12 each	\$20 40
4 meters sand & gravel	10 00
15 adv. mesh screen	15 75
3 pins hinges 2 1/2"	75
3 4 inch door bolts	1 50
3 pulps	1 05
1 padlock	40
30 lbs nails	4 80
2 steel tans	7 00
12 pieces 2 x 4 m. long	83 20
4 ridge poles P	10 00
Wood	25 25
24 2x4x8	5 2x4x10
3 2x4x8	7 2x4x10
3 2x4x8	
5 2x4x8	1 00
25 bags cement	47 25
Transportation	6 00
	\$27 35
Skilled Labor	
One mason	20 00
One carpenter five days	15 60
	35 60
Self-Help Materials	
4 mts. sand	16 60
12 pieces 2 1/2 mts. long	
8 pieces 4 1/2 mts. long	
40 pieces 2 1/2 mts. long	10 00
Coca-lama slate	6 00
	32 60
Self-Help Labor	
24 hrs. @ \$2.75 per hr.	66 75
TOTAL CONSTRUCTION COST	\$164 30



DELIVERY OF MATERIALS

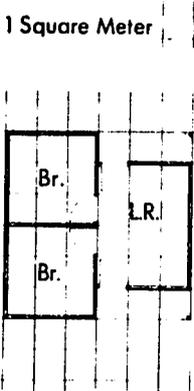


CO-OP EDUCATION

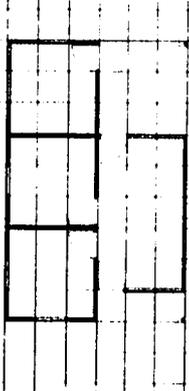
RURAL SELF-HELP

MODULAR CAPABILITIES

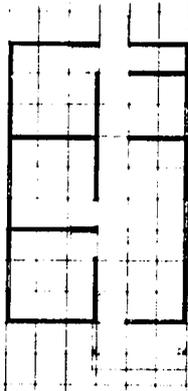
SCHEMATIC DESIGN FOR
MODULAR EXPANSION



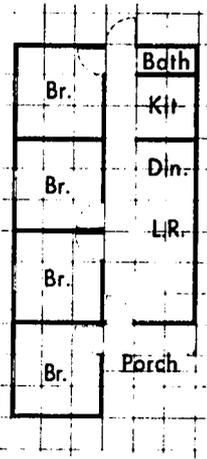
1st Stage
Concrete Floor
Wood Frame
Metal Roof
2 Bedrooms



2nd Stage
Improved Walls
Cooking Porch
3 Bedrooms

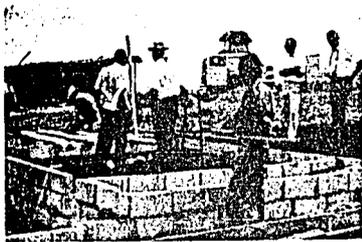


3rd Stage
Inside Kitchen
& Bath
Front Porch
3 Bedrooms

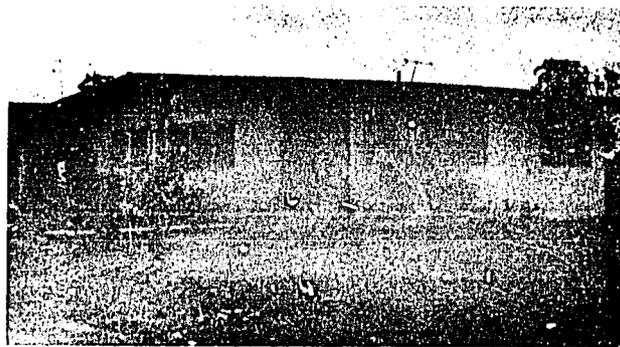


4th Stage
Better Finish
Materials
4 Bedrooms

BUILDING A PROGRAM HOUSE

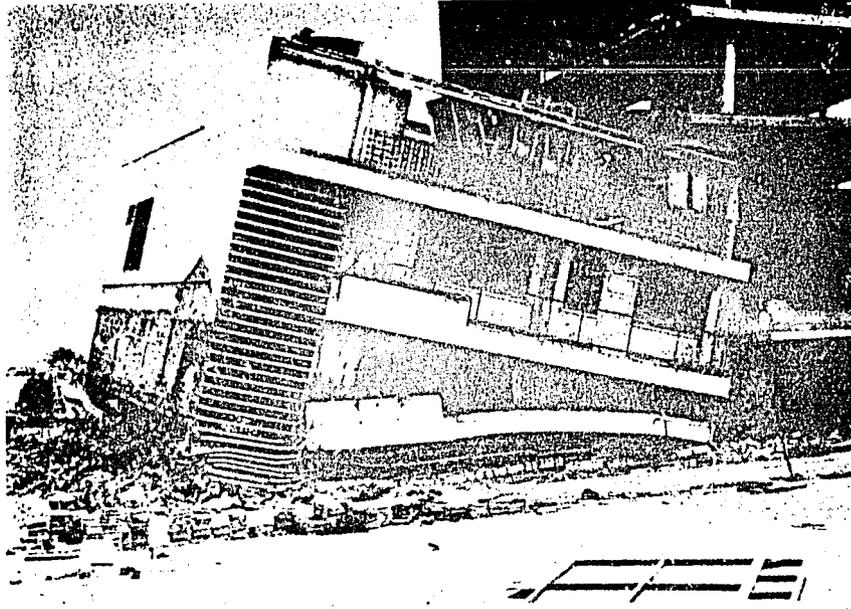


URBAN MUTUAL SELF-HELP



US\$2800/unit (1968)
PANAMA

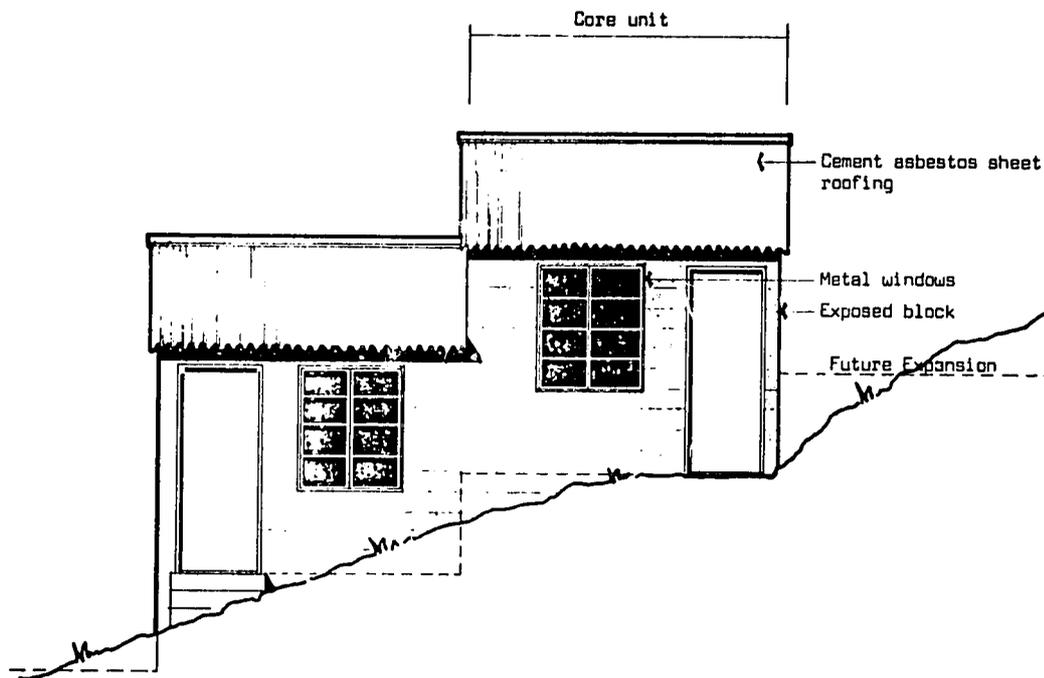
MINIMUM SHELTER FOR EARTHQUAKE VICTIMS
MANAGUA – 1974



US\$290/unit

URBAN MINIMUM SHELTER
COLOMBIA – 1975

Project Shelter
Front Elevation
Scale: 1:50 m



FRONT ELEVATION
scale 1:50 m

US\$1900/unit

OPEN LINKED COOPS



Open-linked co-ops could help provide many needed services in new communities.



FOR EXAMPLE:

Self-help schools.

Maternal and child care.

Family planning information & services.

Jobs through production co-ops.

Better food through consumer co-ops.

Home improvement.

**COMMUNITY ORGANIZATION AND PARTICIPATION
AS IT RELATES TO SELF-HELP HOUSING
THE FRANCISTOWN EXAMPLE**

By B. Makobole, Permanent Secretary, Ministry of Housing and Lands, Botswana

I. INTRODUCTION

Botswana, like many other countries, has had a long tradition of community organization, community participation and self-help. One need only look to the rural areas or the "squatter" settlements to be reminded that most of the accommodation and development of our traditional life was provided and maintained by people cooperating together in families, clans or groups to provide the basic amenities for themselves. But the phenomena of rapid urbanization which has increased dramatically since its independence has produced changes in the living patterns and habits of our citizens. Many of the changes had been introduced during the colonial period when the paternalism and control of business concessions and government administrations created the erroneous impression, particularly in towns and cities, that the government decides and the government also provides.

Today, services and accommodations have become difficult to provide: demand exceeds scarce manpower and financial resources. Yet most people continue to expect development to come from the government--both central and local. Botswana is not unique in this respect. Indeed, we are sharing in the worldwide problems of development in a time of rapid change, dramatic urban growth, growing needs and increasing costs. Those of us working with the local government and housing feel the continuous demand for new housing stock and the accompanying services. There doesn't appear to be any single satisfactory solution, but the recent experience in Francistown, an urban centre in Botswana, underscores the importance of emphasizing and restoring community participation, community consultation and self-help in the development process. This paper will sketch a "successful" endeavour to involve the community in Francistown's urban development programme which features upgrading major areas of the town and providing low-cost housing.

II. CURRENT APPROACH TO LOW-COST HOUSING IN BOTSWANA

For an understanding of the Francistown project it is helpful to first look at Botswana's low-income housing policy. Quite simply, it is to put the resources into serviced plots as opposed to building houses. The urban development and low-income housing policies in the National Development Plan, 1973-78 call for:

- A. Reducing polarization between people of different races and income groups by mixing areas of different types of housing;
- B. Avoiding subsidizing urban development by having the low-income semi-serviced areas subsidized by the sale of high-income residential, commercial and industrial land;
- C. Developing land tenure that encourages home ownership opportunities for all income groups;
- D. Providing land and services at a cost that people can afford while ensuring that the schemes are easy to manage so town councils can duplicate them without straining financial and management resources; and
- E. Providing housing schemes that are designed for reasonable living areas (adequate plot size, service, commercial areas, open spaces) minimum services and future upgrading.

Two types of schemes have been developed to meet these policies, Traditional Housing Areas and Site and Service Schemes. In the Traditional Housing Areas, for very low-income residents, secure tenure is based on issuing a Certificate of Rights to the plot holder. Surveyed plots are serviced with limited standpipes and basic roads and footpaths. There is a small service levy for water and refuse collection, and the houses are constructed by the plot holder using traditional construction methods or modern materials and techniques. The areas include provision for future development of community and commercial facilities and general upgrading.

The Site and Service Schemes have slightly higher standards. A Certificate of Rights is issued to provide secure tenure. The sites are serviced with roads, standpipes and street lighting. A monthly service levy includes a capital development charge, and the plot occupant builds his own house to a reasonable standard with permanent materials. A building material loan and technical assistance is provided through the town councils. The area is planned so that services may be upgraded in the future.

The Ministry of Local Government and Lands has overall responsibility for the planning and implementation of urban development. Increased demands for management and coordination of urban development projects in Botswana's four principal towns has necessitated the creation of an Urban Affairs Division within the Ministry headed by an Under-Secretary. This division works closely with the Departments of Town and Regional Planning and Surveys and Lands regarding low-cost housing developments. It also cooperates with the Ministry of Finance and Development Planning particularly as financial assistance has been required from external sources.

The town councils are responsible for the implementation and administration of Site and Service Schemes and Traditional Housing Areas. As these new responsibilities impose some additional burdens, the government will continue to provide technical and financial assistance. However, it should be clear that the government is assisting the local authorities to implement these programmes and to develop their own management and supervisory capacities.

As these new programmes are undertaken the government is promoting its own consultation and participation programme at all government levels. Political and administrative inputs are sought from both the local and national level. Government departments are encouraged to cooperate not compete, with effective liaison between central and local government as the objective.

III. FRANCISTOWN HISTORY AND BACKGROUND

Some background on the history and peculiarities of Francistown is also necessary to put recent urban development into perspective. Francistown is situated in northern Botswana, approximately 500 km north of Gaborone. It is the communication centre for the north which contains the major mineral resources of the country. Francistown has an estimated population of 28,000 (which has increased from 9,500 in 1964 and 19,860 in 1971) and is an important centre for commerce and higher industry as well as for Central Government Services.

The town has had a curious history--one which produced numerous post-Independence development problems. In the 1880's a private company was granted the concession for all surface and mineral rights in vast portions of what is now the North-East District, which includes Francistown and its environs. At the same time the company acquired the power to proclaim and administer laws and regulations. In 1911 the Bechuanaland Administration confirmed that the company was "in the full, free and undisturbed possession as owners of the land." The first subdivision of land for the establishment of a township at Francistown

was made that same year. The company's extensive land holdings and social/political ideas enabled it to "develop" Francistown into physical divisions based on race and economics. This situation remained until 1972 when the government removed the development constraints by concluding agreements, initiated in 1970, under which it acquired the land necessary for both district and township development, and from then on Francistown could proceed with a meaningful urban development programme.

A. Phase 1

From 1970 the following steps were taken:

1. The initial acquisition of land for residential expansion (1970);
2. The consideration of Consultants' planning proposals for the town (1970-71);
3. The acquisition of more land within the township boundary (1972);
4. The negotiation of finance for a small site and service scheme and for servicing a medium and high-density residential area (1972); and
5. The establishment of a traditional housing area (1972).

The site and service scheme and traditional housing area constituted the first stage of the present urban development project.

B. Phase 2

Concurrently design work and negotiations for finance of the second phase had started. This stage includes:

1. Providing upgrading and services in large areas of the town (including "squatter" areas);
2. Providing new site and service areas for lower-income residents;
3. Servicing and provision of industrial and commercial land; and
4. Building of new administrative and community facilities for the town council.

This work is well underway.

IV. COMMUNITY PARTICIPATION IN AN URBAN DEVELOPMENT PROJECT

The Francistown Council has had a strong and continuing emphasis on community participation and consultation in urban development work. From 1969 a pattern has evolved which reflects a priority on community, staff and resident involvement. Each staff member, regardless of his specific council assignment, is encouraged to take an active role in the development process. The goal has been to create a development partnership bringing the council's technical and management inputs into concert with the ideas and ongoing activities of the town's residents. A staff Coordinating Committee was created in 1971 to promote the flow of information through full Council and all Council Committees. This discussion of relevant urban development issues was important for both its content and process. The idea was established that the Council was to complement not conflict with the residents demonstrated interest and action in development. The Council also created a Town Planning Committee in 1971 as planning became a priority.

Francistown is divided into nine wards, each represented by an elected councillor. To extend the communication between the wards and the Council, Ward Officer posts were created (1971) and filled with mature, capable Council employees who exhibited strength of character and sensitivity to the problems and aspirations of town residents. The Ward Officers are the day-to-day link between the ward residents and the Town Clerk's Office. They have offices in the wards and are primarily concerned with the established housing areas, including squatter settlements and traditional housing areas. As urban development projects got under way the Ward Officers played a vital role in discussing and consulting with the public throughout the planning and implementation process. They encouraged local residents not to simply react to physical works, but to contribute beforehand. In this role they were performing good community development work - providing leadership where necessary, assisting with initial planning and organization, and providing information and feedback.

Another Francistown innovation which enhanced the communication and community participation process was the evolution of the Ward Development Association (WDAs). The concept was founded on a community association which developed in one ward and then gained official recognition from the Council. The idea spread to other wards and has been ensured by the support of the Council.

The important functions of the WDAs are: -

- A. To serve as a communication channel through which the Town Council can effectively seek evaluation, reaction and comment about town development issues, bylaws, and other facets of urban management affecting the lives of residents, as well as the residents contributing original ideas to the Town Council; and
- B. To formulate project proposals for submission to the Town Council and to implement such projects.

These Ward Associations can be looked at as counterparts to the rural sector's Village Development Committees. They might be called neighborhood development or community development associations. Also, it is important to note that from the beginning the WDAs had access to, and were encouraged to call on, the Council staff for information, technical advice and guidance. In this way, not only are the WDAs assisted, but the Council is also kept well informed and conscious of its public service role.

The WDAs are regarded as an important part of the development process. This can be seen in the following quote from the Francistown Mayor's address to the WDA conference in 1973:

Ward Development Associations are to promote the national principles of "therisanyo" (consultation) and "boipelego" (self-reliance). With the rapid changes in Francistown since Independence, Ward Development Associations are important to encourage the active participation of urban residents in both planning and understanding these changes. The increased awareness produced through the WDAs will make it easier for the residents to make informed decisions. This will also increase their range of choices and thus give them greater control over their lives.

Any resident of a ward can be a member of a WDA. Each of the WDAs has its own officers who are elected at a community meeting. These officers form the Ward Committee for each ward. The Councillor for the area is an ex-officio member of the committee. The committee may also co-opt other members as it is relevant and necessary. There is also a Central Ward Committee which is composed of members from the individual committees. It serves to coordinate interward activities and provides a clearing house for information.

Another significant role is played by a Council department created specifically for the administration of the new site and service schemes. The Self-Help Housing Agency (SHAA) is responsible for allocating site and service plots managing the building material loan system and providing technical assistance to plot holders in the construction of their homes. The SHAA combines management, technical assistance and social skills within one agency. Besides a central management staff, each housing site has social development and group workers, construction supervisors and teachers and store and revenue personnel. Because the SHAA delivers such a wide range of services it operates as a team with each member aware of what the other is doing.

The Francistown Council and the project management have stressed the need for community consultation in the site and service programme. The goal has been to create a sensitive, responsive and disciplined agency which cannot only deal effectively with administering a self-help housing scheme but can also assist with developing a community.

As can be seen the Francistown Council developed a substantial consultation, information and participation structure—staff coordinating committees, Ward Officers, Ward Development Associations, a Self-Help Housing Agency and a Central Ward Committee. Each of these groups used a variety of techniques and approaches: large public meetings, formal presentations, small group discussions, instructional materials, field trips and professional consultations.

These processes were supported and developed by the Council and a local resource, the Division of Extra Mural Studies of the University of Botswana and Swaziland. Staff training and development workshops were held for Ward Associations, Ward Officers, Councillors and the Self-Help Housing Agency staff. SHAA, for example, had sessions on site and service design and management, team building, programming and planning, construction supervision, office practices and communication. The WDAs also had workshops and conferences to learn new planning and leadership skills, share information, set priorities and evaluate their progress.

It is important to note that the Francistown Town Council recognised that it wasn't enough to have a good idea—promoting community participation and consultation—but that the idea required continued support and development. In a country which is short of trained manpower, training workshops for local leadership and staff are essential for continued planning and growth. It is a fact that too often we are able to assemble the plans, materials, budget and techniques for a project only to see the project flounder for lack of community understanding and leadership ability at all levels.

As the urban development work progressed there have been numerous examples of the participation process at work. The Self-Help Housing Agency carried its programme to the people. Public meetings were held to publicize the site and service project. Later, successful applicants were invited to conferences which dealt with their rights and responsibilities as new regulations, services and financial responsibilities were all thoroughly discussed. The conferences also enabled the SHAA staff to clarify its roles and describe its functions and responsibilities in detail.

The SHAA has demonstrated that it is not simply a building regulation or enforcement agency. Staff give residents individual advice and consideration on relocation, finances and construction. Follow-up work is done with each home owner to ensure that his rights are protected and his obligations met.

As work progressed a community committee has evolved in one of the new site and service areas which may eventually become a new Ward Development Association. The Committee is already raising questions about future developments for the area and is keen to share and evaluate its experiences with the Council.

The Ward Development Associations organized numerous public meetings to discuss the intent and significance of upgrading major portions of Francistown. (Most settlements will remain basically intact with essential resettlement to Site and Service or Traditional Housing areas only when required for installation or extension of infrastructure and services.) Some of these meetings involved the architect and planners; others involved the Town Clerk. All meetings involved the Ward Officers and representation from the SHAA staff. Each meeting was aimed at good two-way communication. The Council and project staff were not simply giving information; they were listening to comments, ideas and questions arising from their presentations. As a result some changes were incorporated in the plans which made for a more relevant and practical programme.

As physical work began in the upgrading areas, residents were ready and waiting for the development activity. Some residents had such a good understanding of the area plans that, on several occasions, they were able to halt contracted work before major mistakes had been committed. The surveying, demolition and corresponding resettlement that accompanied the construction of new roads were accomplished with minimum problems and maximum cooperation. It was apparent that the communities understood what was happening and as a result responded positively to the development activity in their neighborhoods. They felt they were a part of the process.

V. COMMUNITY PARTICIPATION: PROBLEMS AND OBSERVATIONS

A programme of community participation and consultation is not without its problems. Leadership and staff must be identified, oriented and trained. Not everyone is an effective communicator. Not everyone is prepared to involve themselves in the community involvement which requires weekend work, irregular hours and the discipline this demands.

There is also the problem, one that is inevitable, that regardless of the effort to communicate and consult there will always be some misunderstanding and misinterpretation of information. It is important to remember that the terminology and phrases of development are often unfamiliar perhaps even meaningless to the typical community resident. A related problem is that people hear what they want or expect to hear. Issues have to be discussed and then rediscussed. It is as important to know what people heard and understood as it is to give the message. It is also necessary to promote the understanding that the participation and consultation process is a process of sharing and cooperation. It is not a competition. This is one matter which should be on conference and workshop agendas.

Perhaps the biggest problem of undertaking or promoting a programme of Community participation and self-help is that we must be prepared to respond. There can be community information programmes in which information is simply given, but if people are asked to participate and if we want to develop trust in the developmental process, then the planner and authorities must acknowledge that our communities can influence the decision-making and planning process.

Our urban centres are groupings of people in rapidly changing conditions. Planning and implementation of urban programmes should engage the people in the progress. Development, whether providing low-cost housing, education or services, is a continual growth process whose main component is people. We must consider and endeavour to understand their perceived self-interests if we are to match their needs, aspirations and priorities to those of the planners and local authorities. To do this we need to consult and listen.

It is important to note that the Francistown Town Council has worked hard at the participation and consultation process. Today, community participation, community education and self-help don't just happen. If they are desired they must be encouraged, supported and developed. This means there must be some financial and technical support.

In self-help housing and upgrading projects it is people who are affected, people who are expected to pay levies and rates, people who are expected to invest and people who are expected to cooperate. In Francistown there has been a reasonably successful effort to bring the people into the planning and development process. The low-income housing and urban development problems haven't been solved, but progress has been made. Physical work is evident--self-help housing, services and community facilities. More important, perhaps, a process has been initiated or restored which enables our greatest resource, people, to be fully engaged in the community's development.

VI. EXTENSION OF THE FRANCISTOWN EXPERIENCE TO OTHER TOWNS

It may appear that for a town of a relatively small population compared with the great cities of Africa the ward organization is expensive in man power resources. Suffice it to say that it has provided the means for a large World Bank redevelopment project to be discussed with the people affected and to explain to them on a personal basis how the temporary upheaval and inconvenience which they will experience will result in lasting benefits and improvements in their living conditions. This in turn has resulted in the actual execution of the scheme, including a major upgrading and resettlement exercise, being carried out with the general support of the inhabitants involved.

In Botswana we consider that the local authorities should themselves have the initiative in deciding the administrative framework within which self-help housing and the services related to town expansion are to be organized. With an annual urban population growth of between 7 per cent and 14 per cent the other three municipalities are facing the same problem of major immigration and the need to channel these migrants into properly planned site and service and traditional housing areas and to assist them in providing homes there as an alternative to squatting, which would exacerbate the difficulty of upgrading existing squatter settlements.

The methods applied in Francistown have been proved by their success, and there are indications that, with variations to suit local circumstances, the other towns are adapting their organization to a similar model.

SUMMARY OF REMARKS

Made by Peter A. Tarimo, Land Valuer and Surveyor, Tanzania Housing Bank, Tanzania.

The Tanzania Housing Bank is responsible for housing everyone in Tanzania, including low-income people. With annual population growth rates of 3% in rural areas and 5 to 6% in urban areas the problem of housing is fully recognized.

It was felt that 3 things were needed to begin such a program:

- I. Adequate construction techniques
- II. Proper financing systems
- III. Viable self-help systems

The Bank offers loans at lower than usual interest to low-income families. The Bank also raises necessary funds by:

- I. National Housing Fund developed in 1971
- II. Foreign sources

The principles the Housing Bank and Fund operate under are as follows:

- I. Project must be economically viable
- II. Project must be technically feasible
- III. Project must be socially acceptable
- IV. Payments must be structured to be made without any hardship

Relative to community development, the Tanzanian experience has tried to decentralize, that is to disperse as much information and knowledgeable people as possible. The mission of these people and/or information has been to advise and assist.

DISCUSSION

The following discussion included the point of difference in approach to community participation. Mr. Campbell felt that political or municipal involvement was not as necessary or as desirable as resident participation.

The discussion also concluded that the real economic purpose of self-help projects and community participation is to substitute human resources for the cash that is required in a project to meet the need for capital and continuing expenses.

Some of the other conclusions reached were that certain outside skills are required--but what can be done by people themselves is enormous. The paramount importance of leadership and motivation in any community participation of a self-help program was also mentioned.

Another significant point was raised regarding the eternal conflict between low-income programs for housing and/or public health standards. It was agreed that a realistic bare-minimum standard be adopted and held to by the authorities.

A question arose about how many people are required to administer a self-help program. In Zambia, 10 officers, giving technical, administrative and community development assistance were allocated for every 500 plots. In Jamaica 1 technician has been allocated for 85 families.

It was agreed that a field staff advisory service was needed from the very beginning of a program.

USAID FILM

The USAID film "Shelter" was shown to the Fourth Working Session participants. This film, which runs for 18 minutes, is to be shown at the UN Habitat meeting in Vancouver, Canada, May 31-June 11, 1976.



THE FOURTH WORKING SESSION
Foreground left to right: Mr. Adamson and Mr. C. P. Katole — from Zambia.

FIFTH WORKING SESSION

Chairman: Peter Kimm, USAID/Washington, D.C.

Participants: Eric Carlson, UNEP/Kenya
E. Paul Mwaluko, United States
G. M. Matheka, Kenya

Presentation of Paper by Eric Carlson

Presentation of Paper by E. Paul Mwaluko

Presentation of Paper by G. M. Matheka

HUMAN SETTLEMENTS, UNEP AND THE FOUNDATION

by Eric Carlson, Deputy Director, UN Habitat and Human Settlements Foundation, UNEP, Kenya

Mr. Chairman, Ladies and Gentlemen,

It is a special privilege to be invited to address this distinguished group of officials and experts on African housing programmes and to explain some of the background, objectives and current functioning of the UN Environment Programme and the new UN Habitat and Human Settlements Foundation as they relate especially to the main theme of this meeting: shelter for the lower-income groups.

As you may know, it is less than three years since the UN Environment Programme established its headquarters in Nairobi--the first global inter-governmental organization ever to be headquartered in the developing world. At first, UNEP was located here in the Kenyatta Conference Centre, but last December moved to the Gigiri Campus, some six miles north, to temporary buildings pending the construction of permanent headquarters. The Governing Council of UNEP consisting of 58 member states has just concluded its fourth session, and it is generally agreed that UNEP is well-established as an international entity, and making itself felt as a catalytic element for many areas of environmental improvement, both natural and man-made, even though its basic funding and available resources remain very modest.

UNEP was born as a result of the UN Conference on the Human Environment, held in Stockholm in June, 1972, which led to ensuing General Assembly action to establish it as a separate small secretariat, assisted by an Environment Fund, with voluntary contributions from governments. UNEP's concern with human settlements stems from the very first paragraph of the Stockholm Conference declaration:¹

“Man is both creature and moulder of his environment, which gives him physical sustenance and affords him the opportunity for intellectual, moral, social and spiritual growth . . . Both aspects of man's environment, the natural and the man-made, are essential to his well-being and to the enjoyment of basic human rights--even the right to life itself.”

¹ Report of the UN Conference on the Human Environment, Stockholm, 5-16 June 1972. A/Conf. 48/14/Rev.1.

Recommendation I of the Action Plan for the Human Environment, under the heading "Planning and Management of Human Settlements for Environmental Quality," leads off with the following:²

"The planning, improvement and management of rural and urban settlements demand an approach, at all levels, which embraces all aspects of the human environment, both natural and man-made . . ."

These original objectives regarding human settlements have been consistently upheld by the UNEP Governing Council, which placed the issue of improving the environment of human settlements at the very top of its priority list, where it still remains.

In translating this meaning of the environment to habitat and human settlements, the places where people live and work, UNEP has followed three main courses of action, all stemming also from the original Stockholm Conference recommendations, as subsequently approved by the Governing Council and by the UN General Assembly. These are as follows:

I. DEVELOPMENT OF A HUMAN SETTLEMENTS PROGRAMME IN UNEP ITSELF.

In its approach, UNEP views human settlements basically as ecosystems, composed of man-made and natural elements which interact in complex ways within their environmental dimensions. A brief summary of this programme, as presented to the Fourth UNEP Governing Council, is attached.³ You will see that it gives special attention to two major aspects related to your main theme of "Housing for the Lower-Income Groups":

- A. Demonstration projects for an integrated approach to the improvement of marginal settlements, which will begin in Southeast Asia, in the cities of Bandung and Surabaya, Indonesia, and in Manila, the Philippines.
- B. A programme of support and upgrading for human settlements technology for low-income groups, based on integrated national, regional and international action; the designation of regional and subregional centres; and vastly augmented services for information, documentation and dissemination.

In the case of the marginal settlements improvement programme, it is expected that the projects in the Philippines and Indonesia will be the forerunners of similar projects in the other regions. They will take some time for realization, involving a three-year period and an estimated cost of about US\$2 million to the UNEP-Fund. The projects will involve a number of innovative aspects from a technical point of view, such as: systems culture; solid waste recycling; individual sewage disposers; methods of water conservation, collection and recycling; solar energy and methane gas; improved house designs; reduction of infrastructure costs; new types of surface construction and drainage, etc. They will also involve other components, such as: land use, development and tenure; landscaping and the enhancement of the natural environment; adult education; training of personnel; employment and production; credit and financing; health, nutrition and family planning; community organization; and leisure and recreation.

² *Ibid*

³ "Review of the Status of the Programme" (Report of the Executive Director to the Governing Council, Fourth Session, Nairobi, 30 March to 14 April, 1976, UNEP/GC/61)

As for the human settlements technology programme, the global framework for this programme was developed in the course of an international Advisory Group Meeting held in Nairobi in October. The main aspects of this programme are to:

- Identify a global network of leading institutions in the field of Human Settlements technology, organized on an ecosystem and regional basis;
- Establish the necessary mechanisms of coordinating and promoting the activities of these institutions in research, information and implementation of projects;
- Collect, disseminate and make all data in the field readily available;
- Promote the use of environmentally sound technologies which, due to their very nature, will help countries to become more self-reliant.

The first regional meeting, for the ECA-ECWA regions, was convoked by UNEP from 2 to 6 February, and recommended a series of measures for implementing an action programme, in collaboration with the regional commissions, the UN Centre for Housing, Building and Planning, national authorities, building research centres and universities, etc. The draft report of this meeting is currently in revision and will be distributed to you as soon as it is available.

II. THE ESTABLISHMENT OF THE UN HABITAT AND HUMAN SETTLEMENTS FOUNDATION.

The Foundation is an outgrowth of Recommendation 17 of the Stockholm Conference, and its development into reality since then is traced in the brochure which is available to you. According to the General Assembly resolution which established it, "The primary operative objective of the Foundation will be to assist in strengthening national environmental programmes relating to human settlements, particularly in the developing countries, through the provision of seed capital and the extension of the necessary technical and financial assistance to permit an effective mobilization of domestic resources for human habitat and environmental design and improvement to human settlements."

The emphasis of the Foundation will be to assist countries in organizing and strengthening institutional mechanisms and programmes, to mobilize increased levels of financial resources for the human settlements sector and combine these with access to technologies and techniques so as to facilitate the creation not just of better housing but of better environments for people. The special contribution of the Foundation will hopefully be to help improve the quality of living space by fully utilizing locally available materials and skills, self-help labour, appropriate planning and design and management capabilities.

How will these objectives be carried out? Obviously there is a long way to go. The Foundation, which is now operating from UNEP-Gigiri headquarters, was authorized US\$4 million by the UNEP Governing Council as a one-time grant for initial funding and to get started. Although a few pledges of modest support were made from several countries at the recent Governing Council, it is evident that most countries are waiting for the outcome of the *HABITAT* Conference in Vancouver before making additional commitments to the Foundation. In the meantime, modest projects are being studied or are being initiated in countries such as Yemen, Ethiopia, Ghana, Swaziland, Lesotho, Bolivia, Trinidad and Papua New Guinea. These involve primarily technical assistance, although modest seed capital grants are also a possibility. The Foundation's distinguished Advisory Board will be meeting in Nairobi on May 5 and 6, and will undoubtedly be helpful in shaping a short-term and longer-term programme for the Foundation's activities.

III. SUPPORT FOR HABITAT: THE UN CONFERENCE ON HUMAN SETTLEMENTS, TO BE HELD IN VANCOUVER, FROM 31 MAY TO 11 JUNE THIS YEAR.

UNEP has been a fundamental force behind it from the beginning, when it established a special Preparatory Planning Group in September, 1973, to develop the framework for it, including a budget for the Conference; the UNEP Governing Council later authorized US\$3 million to assist in the preparation of demonstration projects in the form of films and other audiovisual presentations. These were expected to make the Conference a unique medium for innovative information exchange on practical solutions to the wide range of problems that must be dealt with in providing a better habitat for the peoples of the world.

The official preparatory process for the Conference, headed by its Secretary-General, Mr. Enrique Penalosa, has now resulted in the preparation of more than 100 national reports by governments on human settlements, and a total of 120 countries have committed themselves to producing more than 215 films or slide presentations. So, there will be a wealth of new documentation and information available at HABITAT.

How to circulate for wide distribution and how to make continuing use of this material was one of the questions discussed by the UNEP Governing Council. The host Government of Canada has offered to provide facilities for the exchange of the films and audiovisual materials on an interim basis, under agreement with the UN, and it is likely that this proposal will be accepted.

The three main substantive features of *HABITAT* will be (A) adoption of a statement of principles; (B) recommendations for national action;⁴ and (C) programmes for international cooperation.

The recommendations for a programme for international cooperation to emerge from HABITAT will undoubtedly result in a substantial increase over the years ahead in a wide range of international assistance to national institutions, including both financial and technical aspects. UNEP and the Foundation fully expect to play an important role in this effort, in collaboration with other organizations and institutions, both bilateral and multilateral.

The real work of HABITAT remains to be carried forward after the Conference. More than three years of preparatory efforts may have been carried out, but certainly more than three years will be required to make the Conference truly productive. This challenge can only be met through determined combinations of public action, private sector initiative and a mobilized public opinion at both national and international levels.

⁴ Main themes as follows: Settlement policies and strategies; settlement planning; shelter, infrastructure and services; land; public participation; institutions and management.

UNITED NATIONS ENVIRONMENT PROGRAMME

From "Review of the Status of the Programme" (Report of the Executive Director to the Governing Council, Fourth Session, Nairobi, 30 March to 14 April, 1976 UNEP/GC/61)

CHAPTER II. PRIORITY SUBJECT AREAS

A. HUMAN SETTLEMENTS AND HUMAN HEALTH

I. Human settlements and habitat

27. The Governing Council at its third session requested that the intensive development of the different elements of the human settlements field be continued, with special attention to collaboration with national and international organizations and institutions within and outside the United Nations system.¹⁷

(a) General development of human settlements

(i) Summary of strategy

28. The elements of the strategy put before the third session of the Governing Council were¹⁸ to:

(a) Develop the concept of human settlements as ecosystems;

(b) Point out the choices, opportunities and constraints involved in national policies for human settlements, and promote an environmentally sound distribution of population;

(c) Assist individual Governments in formulating their policies for human settlements;

(d) Train personnel to plan and manage human settlements;

(e) Gather and disseminate information on slum improvement.

(ii) Implementation of the strategy and future plans

General considerations

29. Several developments have taken place since the third session of the Governing Council which have a bearing on the strategy. The United Nations Habitat and Human Settlements Foundation became operative in August, 1975; proposals for restructuring human settlements activities in the United Nations system have been produced for consideration at the Habitat Conference; and the Habitat Conference itself is gathering together an important body of data on human settlements problems and solutions.

Human settlements as ecosystems

30. Several activities are already under way which relate to this element. Integrated studies are being undertaken with UNESCO to establish a better understanding of how human settlements function as ecosystems, as an aid to decision-making. In cooperation with SCOPE, three

¹⁷ Decision 29 (III), paragraph 9 (a).

¹⁸ UNEP/GC/31, paragraph 29.

institutions have been identifying and measuring environmental parameters affecting human settlements. With WMO, studies are being undertaken in the application of meteorology and operational hydrology in human settlements planning. Future action in this area will involve a study of the methodology for classifying the land, water and space needs of human settlements.

Choices and opportunities

31. Urban environment and urban employment in developing countries have been studied, with the objective of developing case studies, within the World Employment Programme. These will demonstrate the employment implications of slum improvement, infrastructure works, etc.

32. Studies of environmental health criteria¹⁹ and the implications of natural disasters for human settlement planning, construction and management are also relevant to this element²⁰.

33. Future activities in this field will give particular attention to the relationship between population and environment in human settlements, focusing on research, action and training in selected demonstration communities, in some cases new towns or cities, in developing countries. This activity will endeavour to demonstrate the principles, guidelines, etc. developed elsewhere in the UNEP human settlements programme.

Assistance to Governments

34. The principal activity has been continued assistance in cooperation with UNDP to the Capital Development Authority of Dodoma, Tanzania.

Training of personnel

35. The main focus has been the human settlement managers' training programme, which is being implemented by UNESCO on a regional basis. It includes short pilot courses to improve the ability of personnel in developing countries to deal with the environmental dimensions of settlements planning.

36. In the future, special programmes and courses will be developed and supported in collaboration with existing institutes of public administration and local government and key university and research centres. In some cases assistance will be given through the reorientation of curricula dealing with various aspects of human settlements, and for the development of appropriate teaching materials in various media and special training for documentation in the field.

Slum improvement

37. Demonstration projects are being launched in the Philippines and Indonesia to illustrate an integrated approach to the improvement of slums and marginal settlements. The intention is to continue and complete these projects and to develop similar demonstration projects in Africa, West Asia and Latin America; this will ensure a meaningful methodology which is both adaptable to the particular problems of each region and country and able to influence governments' continuing programmes in this field. It is also proposed to extend these activities to include improvement of settlements in rural areas.

¹⁹ See Human and environmental health, paragraphs 47-73.

²⁰ See Natural Disasters, paragraphs 218-226.

Cooperation with other United Nations Institutions and other organizations

38. Plans for UNHHSF were agreed under the aegis of a task force on human settlements. Indeed, several of the pilot and demonstration activities described above will be implemented with the support of UNHHSF.

39. UNEP maintains and will continue to develop close cooperation with the United Nations Centre for Housing, Building and Planning.

40. The Habitat Conference has benefitted from UNEP support for its demonstration project and audiovisual presentation programme. To capitalize on UNEP's support for Habitat, the methodology for information exchange and communication in the human settlements field will be examined. This will involve organizing the major inputs to the Conference for worldwide utilization, and reference purposes. It is intended to consider the establishment of a centre for information and communications on human settlements, drawing on the materials assembled for Habitat.

(b) Human settlements technology

(i) Summary of strategy

41. The four main elements suggested for the UNEP human settlements technology strategy were:²¹

(a) Development of environmentally appropriate technologies for low-cost housing, with emphasis on self-help methods of housing construction;

(b) Support of efforts towards systematic reduction in infrastructure and service costs;

(c) Assistance for development of a systems approach to the solution of water supply problems;

(d) Development of more appropriate low-cost techniques of waste disposal for the health of populations in high-density areas.

(ii) Implementation of strategy and future plans

42. A number of initiatives have been taken which contribute to the realization of the elements of the strategy. Thus in respect of element (a) low-cost building technologies have been studied and architecture in the Arab region has been the subject of research. Studies, qualitative observation and surveys of traffic restraints in a major city have contributed to element (b) and the preparation of guidelines for hand pumps for water to element (c).

43. However, in the course of reviewing the strategy since the third session of the Governing Council, it has become clear that, while the elements are still relevant, the priority is to agree upon a systematic approach, involving the adoption of a framework supported by specific action programmes and activities in the regions. This framework was developed in the course of an international advisory group meeting convened in October 1975²², and requires that the human settlements technology programmes should:

²¹ UNEP/CC/31, paragraph 31.

²² Advisory Group Meeting on human settlements technology, 6-8 October 1975, UNEP, Nairobi, Kenya.

(a) Identify a global network of leading institutions in the field of human settlements technology, which will be organized on an ecosystem and regional basis;

(b) Establish the necessary mechanisms for coordinating and promoting the activities of these institutions (research, information, implementation of projects);

(c) Collect and disseminate all data in the field to ensure their ready availability;

(d) Promote the use of environmentally sound technologies which, due to their very nature, will help countries and communities to become more self-reliant.

44. In the light of this framework, it is intended that future action should focus on:

(a) Concentrated, consortium-type research to be implemented at the regional levels, with the assistance of international agencies, regional organizations and foundations;

(b) Action-oriented projects and programmes, drawn up on a regional basis, to test new concepts in human settlements technology.

45. Priority will be given to the development of environmentally appropriate technologies and systems for low-cost housing, water supply and waste disposal, cost reduction techniques for infrastructure and services, health-oriented projects and techniques for the development and utilization of locally available building materials. Other areas of concern will include alternative forms of energy, transportation and food production technologies.

46. In the development of this programme, particularly close coordination will be maintained with the programmes for the general development of human settlements, especially in relation to marginal settlements and that for environmentally sound technologies. The programme will also be influenced by the outcome of the Habitat Conference.

STATEMENT BY E. PAUL MWALUKO, DIRECTOR, UN CENTRE FOR HOUSING, BUILDING AND PLANNING, USA

welcome the opportunity to attend this Third Conference on Housing in Africa, and wish to express my appreciation to its sponsor, the United States Agency for International Development, for the kind invitation.

In appearing before this distinguished gathering of professionals and officials concerned with housing and related questions, I find myself in a position to speak in three very pertinent capacities.

First, and foremost, is my responsibility as Director of The Centre for Housing, Building and Planning of the United Nations Secretariat's Department of Economic and Social Affairs. The Centre is the technical unit entrusted with responsibility to coordinate all questions related to housing, building and planning in the United Nations system. It has major technical functions in the backstopping of projects, in the substantive field, in the United Nations Programme of Technical Cooperation, and its representatives meet approximately every two years with the Committee on Housing, Building and Planning of the Economic and Social Council.

Second, I should like to refer to an earlier time in my career, when I was a senior official in the Government of Tanzania and responsible for the formulation and execution of government housing policy. In this capacity I had an opportunity to deal with a myriad of questions related to housing, both in the context of the national economy and as a social need.

And finally, I may speak and identify as an African national who is acquainted at firsthand with the problems of housing and its place in African life--from the point of view of the needy consumer.

It is not my intention, however, to approach the theme of this year's conference, "Housing Programmes for Lower-Income Groups," from each of these perspectives since, basically, they complement each other. I find that this personal familiarity with the situation in the African region has been most helpful as I fulfill my responsibilities to the United Nations.

At the Centre we have accumulated a great deal of experience over the past several years, made possible by the contributions of representatives of Member States who discuss their technical and national development problems fully in our several United Nations forums. With the talent of a technical staff drawn from around the world, and the collaboration of other units in the United Nations system, from time to time we advance concrete proposals to cope with the impending housing and urbanization crisis in Africa. But what we need now to give life to these proposals are substantial resources, the collaboration of donor governments, and a strong commitment on the part of the requesting countries, so that we may deal with these problems as they are.

Scope of United Nations Efforts

In the brief time at our disposal, it would not be possible to give a truly detailed picture of the scope of United Nations' work in the field of housing, building and planning from the time that the Organization became actively engaged in this field. Suffice it to say that we have gone through different phases in our technical cooperation efforts in this field, and even as I speak, we are preparing ourselves for a new and more challenging phase brought on by changing conditions in our lives and in the world in which we live.

At the Stockholm Conference in 1972 the United Nations demonstrated to the world its profound concern regarding the condition of human habitation or 'human settlements' as we called it. In a matter of weeks, at Vancouver, we shall have an opportunity to examine the problems even more concretely and to chart the course of future national and international action.

This was not the case two decades ago. At first, there was simply the task of letting Governments know what technical services and expertise the United Nations provided through the Centre. We are a relatively small number of professional planners and architects and engineers, from both economically developed and developing countries, who have been brought together to apply our different experience and complementary skills in the solution of problems, the dimensions of which are only now being fully realized. This we have tried to do with the meagre resources at our disposal.

It has been no easy task to convince some governments or persons from other disciplines of the priority which should be given to the housing sector. Looking back, the reason was not because government officials did not understand or comprehend the significance of adequate shelter, or the role of housing in their national, social and economic development programmes. At least this is what we wish to believe. The answer might be far less complex. The governments of developing countries, particularly in the African region, were of necessity more preoccupied with the immediate task of putting their political house in order.

And even where governments were willing and ready at that time to embark upon large-scale programmes in the substantive field, as they examined the institutions which they had inherited, they did not see the technical manpower, the professional manpower, nor the resources that were needed to do the job. The one expert post which the United Nations could usually provide, whether in town planning, housing or building, was usually most welcome. But soon it was obvious that the job to be done was too overwhelming for these sparse contributions, both from a technical viewpoint and in the context of the new political experience.

As time passed, and the problems of housing, urban and regional development--and my audience will please note, *regional* development, not rural, for even our rhetoric betrayed us--as these problems increased in severity, governments were faced with both the urgent need for short-term relief measures to meet their new national responsibilities and guidance in moving toward more genuine long-term solutions. The task has been arduous, and there have been some accomplishments. Yet, the more that governments have been able to achieve, the more ominous and forbidding has been the work which lies ahead.

By 1975 the Centre was responsible, through the Office of Technical Cooperation of the United Nations Department of Economic and Social Affairs, for the technical backstopping of some 40 large-scale and small-scale projects in the African region, involving the use of 86 expert and associate expert posts, in addition to the support services of the Centre's staff. One has only to note that a sophisticated planning agency for a country of three (3) million could employ, at any one time, a full staff of economic, social and physical planners numbering 400 persons, or more.

The technical cooperation projects in Africa for which the Centre has responsibility varies from short-term specialized services to large-scale projects involving the preparation of Master Plans for Capital Cities. Depending on the needs and wishes of the requesting countries, a full range of detailed technical and professional services are provided, including preparation and implementation of comprehensive development plans, organizing the local building construction industry, constructing low-cost housing units, advising on the formulation of policy, drafting and executing sites-and-services programmes, etc. In our training efforts we have had to be innovative in order to reduce drastically the conventional time required to train a properly qualified architect, engineer or physical planner.

The recent distribution by the Centre of a revised bibliography of its publications, documents and technical reports on housing, building and planning is a mirror of the extensive and detailed study which has gone into the question of housing over the past several years. These reports, in the majority of cases, represent a substantial body of factual information and technical analysis derived from hard experience in the field. Where comprehensive studies or national housing

censuses were not available, sample surveys were undertaken and used together with information developed for implementation of specific development projects, including United Nations technical cooperation projects.

In this connection, we can list as examples any number of developing countries in the African region, from Sudan to Swaziland, from Gambia to Kenya, countries which have worked together with the United Nations in the development of programmes in housing, building and planning. The information has been quite substantial, even though it is incomplete and there are large gaps to be filled. Nevertheless, there can be little doubt about the accuracy of the assessment of the current status and trends in the field of housing. It remains a basic professional responsibility to keep track of the rapid social changes that alter the character of housing problems from one country to another. However, we cannot afford to study the housing problem to death before doing something truly effective to cope with impending conditions.

It is my respectful opinion that a discussion of housing *per se* or "Housing Programmes for Lower-Income Groups," is only part of the problem. Surely there is not the slightest doubt regarding the need for housing, and I should not wish to convey any other impression. One wonders, however, whether exclusive attention to housing does not obscure the basic needs of human settlement, with all that this implies in terms of a satisfactory human existence and a resolution of basic national concern. Perhaps some details regarding the nature of the problem might bear out this thesis.

Slums and Squatter Settlements

Population projections by the United Nations indicate that the total population of the 35 countries of Tropical Africa will reach 303 million by 1980, 295 million by 1900 and 525 million by the year 2000, thus more than doubling in thirty years. For the corresponding period the urban population is expected to increase from 37 million to 106 million. Under existing conditions, the major impact of this increase will be on existing cities.

It is our view that considerations in regard to housing must relate realistically to the overall social, economic and environmental conditions which stem directly from this extraordinary rate of population growth. One must therefore understand the character of this growth, its social, economic, environmental and political implications, in devising measures to cope with it.

The "United Nations Report on the World Social Situation," released last year, states that "slums and squatter settlements at present constitute the living environment for at least one third of the urban population in all developing countries, and they are growing at a rate of 15 per cent per annum, which will cause them to double in six years."

In Africa, reliable estimates of slum and squatter percentages refer to only two of the continent's seven cities with more than 1 million inhabitants. In 6 cities with populations between 500,000 and 1 million inhabitants an average of 62 per cent live in slums and squatter settlements. Information is available for 15 of Africa's 66 cities with populations between 100,000 and 500,000. Of these 15 cities, the percentage of slums and squatter settlements is consistently high (only 2 below 48 per cent and the highest 90 per cent) and higher as a group than in either of the two other less-developed regions. Some indication of the primacy of these cities is given by the fact that 12 of these capitals, not including South Africa, account for an average of 38 per cent of their respective urban populations. Some national details are more revealing.

Algeria

In 1954, 30 per cent of Algeria's main towns, *Algiers*, *Oran* and *Annaba*, lived in shanty towns. In *Algiers* those in areas other than *bidonvilles* lived on an average of three or four to a room. In 1966 *bidonvilles* accounted for 13 per cent of Algeria's total urban housing units.

Nigeria

Most African countries have no more than one or two cities with populations greater than 100,000. Nigeria has some 27 cities of this size, and two of these have more than 1 million inhabitants. The population of metropolitan *Lagos* is estimated at 1.4 million, growing at a rate of 4 per cent per annum. Estimates of the number of people now living in slums and squatter settlements are varied, but their continued growth is referred to in numerous reports.

In 1968, slum dwellings occupied half of the city area of *Ibadan* and between 60-70 per cent of the population was living in these areas. By 1971 the proportion of squatter population in the urban agglomeration of *Ibadan* increased to 75 per cent of the 1.2 million inhabitants.

Egypt

With an estimated population of between 5.5 and 7.5 million, metropolitan *Cairo* accounts for approximately 20 per cent of the country's total population. This proportion is likely to increase to 25 per cent by 1985 when the city's population may reach 12 million. Metropolitan *Cairo* is the continent's largest city and some 315,000 people are added to its population annually. The magnitude of this population concentration in terms of land and shelter is enormous. All forms of shelter are recognized by the Government as part of the housing stock, but the United Nations Secretariat has no specific information as to the extent of slums in the city.

Ethiopia

The population of *Addis Ababa*, now estimated at 900,000, is expected to double in the next 20 years. In 1966, 90 per cent of the population, or 612,000 people, lived in mud and wattle "chicha" houses.

Ghana

Between 1948 and 1960, the number of people per dwelling rose from 14.2 to 18.4 in *Accra*; from 19.2 to 21.3 in *Kumasi*; from 13.6 to 17.8 in *Secondi-Takoradi*. In towns of 5,000 to 50,000, 20 per cent of the population lived 20 or more to a house. In the three towns over 50,000 this rose to 35.6 per cent. People per room ranged from 2.3 to 2.6 average. At an estimated average annual growth rate of 17.5 per cent, Ghana's squatter population may double from 735,000 in 1970 to 1.5 million by 1975.

Kenya

In 1970 one third of *Nairobi's* 535,200 inhabitants lived in some form of squatter settlement and many more occupied overcrowded official housing. The population of the largest squatter area increased by over 100 per cent between 1969 and 1971, owing mainly to the illegal construction of speculative housing by companies formed in the original squatter village. This housing accommodated more people in a single year than the combined private and public output of legal housing built in the seven years since Kenya's independence.

United Republic of Tanzania

According to a 1968 survey, more than one third of the population of *Dar-es-Salaam* (273,000) were living in slum and squatter conditions. At current growth rates, the city population will double in less than 10 years. In 1970 the population had increased to 344,000 and 50 per cent were said to be living in slums and squatter settlements.

Zaire

At its present 11 per cent annual growth rate the population of *Kinshasa*, which is now estimated at almost 2 million, will reach 3 million by 1980. Already 60 per cent of its population live in slums and squatter settlements. In 1971 it was considered that 60 per cent of its dwellings (138,000 of a total of 230,000) required major repairs.

Zambia

Lusaka may be the fastest growing city in Africa if not in the world. At a present estimated rate of 12 per cent, the population will double in less than seven years. The squatter proportion of Lusaka's total population has grown from 8 per cent of the city's total in 1962 to 48 per cent in 1969 when the total population was estimated to have reached 262,000. Though Lusaka is growing faster than Zambia's other towns, the 48 per cent proportion of Lusaka's squatter population is by no means the highest in the country. In at least five smaller towns, squatters make up between 67 per cent and 90 per cent of the town population.

National Housing Policy and Programmes

I have approached the theme of this conference, "Housing Programmes for Lower-Income Groups," within the context of the national experience and national housing responsibilities, in order to demonstrate that housing cannot at this time be considered as an isolated economic phenomenon with limited carefully designed solutions. Housing in Africa at the present time is too much a part of the social evolutionary process now spread far and wide across the continent. It is intimately tied to the migration of people from rural to urban areas; it is an essential part of the development infrastructure for the rural areas; the role of housing as a major element in national social and economic development is today more recognized by governments and international lending institutions than at any previous time; and the social and political issues inherent in a national housing policy are too far-reaching for governments to satisfy only a small part of the population.

Because of the fact that only a tiny percentage of the population in most developing countries can afford conventional housing, a definition of what constitutes "lower-economic groups" is essential to a clear understanding of the premise of our discussions. At the United Nations, even though on practical grounds we cannot always be precise, we refer to the "lowest" income groups when speaking of persons who cannot pay for conventional housing. This group could represent as high as 90 per cent of a national population. It cannot be bypassed, except with serious social consequences.

The challenge to national governments seeking a solution to their housing problems is for them to formulate a national housing policy as an overall guide, and within that framework to develop housing programmes based on a rational allocation of units among various *income* levels; a careful assessment of financial and technical resources; the availability and suitability of land; institutional framework, etc., and building construction capability.

Not so long ago we at the United Nations had been advising and assisting governments in undertaking these tasks, in sequence. We would spend considerable time on the development of a national housing policy, which governments would thereafter be required to study and discuss. Too often the net result was a technical report.

Now we seek, wherever possible, to combine housing policy formulation with practical house construction, demonstrating low-cost techniques, layout principles and use of local building materials. This has helped governments to assess their building construction capability and has provided much useful information for the formulation of pragmatic housing programmes.

The Report on the World Social Situation (1974) states that a review of the relevant literature indicates that the main housing problems facing policy makers include:

- (a) The provision of housing for the low-income stratum;
- (b) The physical and social improvement of slums and squatter settlements;
- (c) The mobilization of all forms of financing for housing, i.e., governmental assistance, private sources, different loan systems and cooperatives;
- (d) The problem of implementing specific programmes due to inadequate institutions and personnel;
- (e) The legal aspects of housing, such as land tenure, subdivision, zoning, enforceable standards, rights of tenants, etc.

Home ownership for the lowest-income groups means that, short of total government subsidy -- which few known governments can afford -- nonconventional means must be found to finance housing for this economic level. So far, among the most successful means of constructing housing for lowest-income groups to any great scale has been "sites-and-services." Some sites-and-services programmes are known to have failed for a variety of reasons. These vary from costly infrastructure and needlessly large plots to distance of the site from work opportunities, etc.

Summary and Conclusion

The formulation of housing programmes is an exercise in which the United Nations is constantly engaged, through its technical cooperation programme. Because housing is a major factor in national social and economic development plans and policies, great emphasis is placed on the need to develop national housing policies and programmes. This presupposes an in-depth analysis of all of the factors pertaining to a sound housing policy--evaluation of existing housing stock, housing needs and ascertainable demand, housing in relation to economic and social development projects, the availability of suitable land, the building code, technical manpower, building materials, finance, design, construction methods and procedures, social analysis, physical plans and layout, etc. It further enables a rational distribution of resources for housing among the various economic levels of a population, and consequently the formulation of concrete programmes and projects for all income groups. In this context, housing programmes for lowest-income groups become a product of resources and scheduling.

The conditions which exist in most developing countries make external assistance in resolving their housing problems most necessary. The commitment of the International Bank for Reconstruction and Development (World Bank) to provide substantial resources for housing of lowest-income groups is most welcome; and the tradition of the United States and other countries of providing aid to developing countries in a variety of fields, including housing, is a humanitarian and practical gesture which only time and good sense can fully reward. But there is a great deal for the governments of requesting countries to do, by way of releasing the organized energies of the beneficiaries of these programmes.

At the United Nations we do not have the financial resources to resolve a nation's housing problems, nor do we believe that finance alone, indispensable as this is, can solve a nation's housing problems. Through our technical knowledge and experience, we can demonstrate and assist in the formulation of policies and programmes, help to set up appropriate institutions, train national personnel and even build and supervise the construction of demonstration housing units.

We further welcome the opportunity to bring together lending institutions and governments, particularly when the arrangements are clearly in the interest of the developing countries. It must be understood, as the *Ad Hoc* Inter-Agency Meeting on Housing and Urbanization noted last October in Geneva, that "The conceptual frame of reference of 'human settlements' today is integrated economic and social development, improvement of living conditions and the total human environment. It is no longer 'housing as social welfare.'" And because of the vast scale of the problem in Africa today, we in the housing field are directly engaged in the restructuring of African society. It is far from being simply a question of providing housing, or of the financing of housing.

It is for the reasons stated that we attach special importance to government programming of housing. With adequate financing and the readily available skills of a contracting firm, any reasonable construction job can be carried out. At the end of the job the question may well be asked, however: How better off are we now than before the job was undertaken? The answer to this question is what the United Nations Programme of Technical Cooperation, in essence, is all about.

A government which has a well-formulated programme can utilize resources from bilateral and other sources more fruitfully than a government which has no programme and which depends on the most readily available private construction firm. For while both governments may require assistance from the contracting firm, the government with a competent staff and housing programme has a decided advantage since it can evaluate the job which has been done and can properly determine the place of the project within the national framework for social and economic development.

The United Nations, through its technical cooperation programme, can work hand-in-hand with donor governments and lending institutions to assist developing countries to build up their institutional framework for house construction. The formulation of a programme, however, is much more than an expression of government will. It requires a careful assessment of several factors, of which the details are readily available from the United Nations and other sources.

Behind all this there is still one indispensable ingredient: that is, a firm government commitment to do the job.

“LOW-COST HOUSING IN THE KENYA CONTEXT”

By G. M. Matheka, Permanent Secretary, Ministry of Housing and Social Services, Kenya

“The prime objective of the Government’s policy in housing is to move towards a situation where every family in Kenya will live in a decent home, whether privately built or state-sponsored, which provides at least the basic standards of health, privacy and security.” The Government considers the minimum requirement for a decent home to be a two habitable roomed house constructed of permanent materials with a separate kitchen and basic sanitary facilities such as toilet and shower compartment. The space requirements are as laid down in the Building Code, constituted by Local Government Adoptive Building By-laws, while the density requirements are determined by the Physical Planning Department of the Ministry of Lands and Settlement.

Facts Related to Housing

1. In order to understand the Government’s endeavours towards the achievement of this goal, it is first necessary to see and appreciate the housing situation in Kenya as a whole. The building industry contributes 25% of the country’s Gross Capital Formation, of which 60% is due to residential development, and in terms of Gross Domestic Product (GDP), its share is 6% per annum. Furthermore, it affects other sectors of the economy such as transport, engineering and furniture suppliers. Its impact on the monetary sector is therefore significant. The precise impact within the non-monetary sector of residential construction, output of which is estimated to be approximately 50,000 traditional homes per annum, mainly in rural areas, is not known.
2. In the rural areas there is no shortage of houses as such, but there is a need for upgrading. There is also a trend towards a demand for modern housing by the rural dwellers. The Government tries to overcome this problem by issuing rural housing loans to individuals.
3. The greatest need for housing, especially low-cost housing on which I want to talk this afternoon, is in the urban areas, where due to the great influx of the rural population to the towns there is the greatest need for new housing development. To explain this point better, I would like to quote figures of the population censii 1948, 1962 and 1969. In 1948 Kenya’s urban population was 270,000 or 5.1% of Kenya’s total population, while in 1962 the urban population was 670,000 or 7.8% of the total population, and in 1969 1.1 million or 9.9%. It is expected that with the minimum anticipated rate of urban population growth of 6.2%, Kenya’s urban population will be 7.1 million by the end of the century. (The high projection is estimated at 9.7 million.) The increase of urban population is due to the increase in the number of urban towns, i.e., 2,000 inhabitants or more, the natural increase of the urban towns, and rural/urban migration, which contributes the largest part. The high rate of population growth in Kenya of 3.5%, and the subsequent high pressure in the fertile areas of Kenya are the main cause of this development. The Government through the Ministry of Housing and Social Services has the unenviable task to house these people.
4. In order to know what can be provided for the people, four considerations have to be taken into account:
 - (a) The affordable expenditure on housing.
 - (b) The existing loan system.
 - (c) The income in monetary terms of the people, and
 - (d) The building prices.

5. The outcome of these four factors have then to be weighed against the allowed building standards. I do not want to go into great detail in all these factors, but I shall try to summarize the Government's position in this matter.

- (a) The affordable expenditure on housing has been set at 20% of the income of a family – formerly 25% in the last development plan period 1970-74. Ideally, 10-15% would have been more meaningful, but this would be unrealistic as there is clear evidence that certain income groups do, in fact, spend up to 40% of their income on housing.
- (b) The National Housing Corporation, the Ministry's main housing development agency, loans Government funds to the Local Authorities at 6.5% interest. For the tenant this means that for rental accommodation he must pay approximately 11.5% of the gross cost of the house including infrastructure, land and fees, in rent, per annum. 7% is for the loan charge based on an annual annuity over 40 years and the other 4.5% includes maintenance, insurance, land rent, administrative charges and rates.
- (c) Under these conditions, an Urban Housing Needs Study conducted by the Ministry in 1973 revealed that 89% of the urban population could not afford a house costing more than K£.1,200. Even then it was apparent that only a few could afford a complete house at the minimal official standard of two rooms. However, since earnings had risen by approximately 26% by November, 1975, while the construction cost of residential buildings rose during the same period by as much as 55%, it can be seen that the position, relative to the affordable expenditure that the people can commit to their shelter has deteriorated, so that the Government's switch in emphasis from complete houses to some form of aided self-help, has become inevitable.

Strategy and Criteria of the 1974-78 Development Plan

6. When the development plan was drafted, it was thought that the minimum cost of a site-and-service plot *could be* K£.300, and it was anticipated that approximately 68,000 plots could be developed over the 1974-78 plan period with the planned allocation funds of approximately K£.24 million. However, due to the rise in building prices and the introduction of a materials loan in order to complete at least the initial stage of construction, it was found that only 40,000 plots at an average cost of K£.530 could be developed during the 4-year period of 1974-78.

7. The housing chapter in the development plan recognised the shortcomings in the previous development period and laid down the strategies to be followed. It states that the Ministry, in co-operation with other Ministries, will issue policy directions, and set up machinery for:

- (a) Research and data collection on design costs, standards and housing needs, the use of local materials, mass production of low-cost housing, estates services and environment factors and the allocation and use of housing units.
- (b) Short and long-term project planning, including financial, land and administrative requirements for both urban and rural housing. Research into measures necessary to increase the contribution by the private sector.
- (c) Organisation of housing agencies, Local Authorities and co-operatives for aided self-help site-and-service schemes, the promotion of home ownership, and the construction, use and management of housing.
- (d) A study of manpower requirements including the training and provision of staff at central, provincial and local levels.
- (e) The co-ordination and monitoring of the housing programmes and projects.

8. In order to put all these strategies into effect the Development Plan goes on to state that the Ministry will be strengthened with the necessary manpower. So far, it has not been possible to realise this objective to its fullest extent and much remains to be done to this end, but with the limited resources of finance and staff at our command, we have made some significant progress in this direction, as I will explain.

Action Taken and Results Anticipated by the Government

9. I shall restrict myself to the low-cost housing aspect of the implementation in this paper with regard to the actions taken at this stage by the Ministry. To begin with, an Urban Housing Needs Study, as I have mentioned, was prepared by the Ministry. From the findings of this Study, we prepared planning guidelines which laid down the number of plots required in the 38 urban centres selected. This advice was then forwarded to the National Housing Corporation, which is the Government agency responsible for implementing the housing programme.

10. At the same time, it was felt that more experience on self-help was required, and an experimental scheme was initiated at Kibera in Nairobi. In this scheme we shall experiment with new designs, higher densities, co-operative development, allocation procedures, guidance of self-help participants, cost reduction in infrastructural requirements and other related matters. This scheme is now in the tender preparation stage and will also be presented at the Habitat Conference to be held in Vancouver later this year.

11. You will understand by now that the Government has opted for the site-and-service approach to the solution for low-cost housing. You might, however, ask why not for improvement schemes and what about slum clearance? It is the Government's policy to reduce the shortage in housing stock as rapidly as possible, and therefore the main emphasis has been given to new development. Schemes for improvement or upgrading of existing housing stock, which has been built in the informal sector, will be considered on its merits. In this field the Government has started with an upgrading scheme in Machakos, and just recently a World Bank-sponsored study, which will also look into ways and means of upgrading squatter settlements, has begun. From our experience in the case of Machakos, we found that the complexities of such a scheme, due to the fact, for instance, that people have been constructing houses over their plot boundaries, are far greater and consequently more time and manpower will be needed to ensure a successful outcome. These factors have of course to be weighed against the cost-benefits. As far as slum clearance is concerned, the Government has made it very clear in its Sessional Paper No. 10 of 1973, that slum housing should not be demolished unless there is some positive and overriding developmental reason for doing so. The construction of a new road or a housing redevelopment programme are two examples which could justify demolition. Furthermore, no houses will be demolished without alternative accommodation being provided. The Government therefore is embarking on the construction of site-and-service schemes on virgin sites, preferably on State land in order to keep the cost as low as possible.

12. What are the advantages of a site-and-service scheme?

- First of all, it is an alternative to squatting and provides the Local Authority with a controlled development in its area of jurisdiction.
- Second, by providing the essential services such as water and sewers, a higher density with proper environmental standards can be achieved.
- Third, a properly-planned layout can take into account future improvements, e.g., road reserves, space for social amenities, powerlines, etc., so that with time when the people's incomes have risen the area can be upgraded.

- Fourth, it creates local employment opportunities. When a scheme of complete homes is built, a contractor, often from another area, may move in, and deliver a complete product. Now, local *fundis* (this is the Swahili word for craftsmen, such as carpenters, masons, etc.) and local traders will also benefit from this development. In other words it stimulates the local economy.
- Fifth, it creates home ownership in line with the Government's policy, and the self-help participant will be responsible for the maintenance and will be encouraged to bring his house up to standard as soon as possible.
- Sixth, a self-help participant can build his house far more cheaply than any public agency could. He also knows exactly what standard he can afford at a certain stage.
- Seventh, a very important point is that, by providing the participant with a plot and by letting him participate in the development of his own community, dignity is afforded to the individual, and his status in society thereby enhanced. These are vital factors for the welfare and stability of the nation.

13. To ensure that these standards are properly developed it was necessary to brief the Local Authorities concerned on this concept. Those Local Authorities which have embarked on these types of schemes have complained that the poor man could not move onto the site as he probably could pay his deposit and the monthly repayments, but had no funds to construct the super-structure. This resulted in a situation where the better-off acquired the plots allocated. This is now overcome by the introduction of an additional materials loan with which the self-help participant can build in permanent materials, at least one room plus kitchen, shower and toilet. This minimum requirement must be constructed within 2 years, otherwise he will forfeit his plot. The other objection raised by the Local Authorities was their fear of creating new slums. It has always been stressed that the ultimate standard of a house is as laid down in the Building Code. The Local Authority, however, must allow a lower standard for the time being and permit the self-help participant a longer construction period. Experience elsewhere has shown that in 10-15 years' time this stage has been reached. The loan given to the self-help participant is normally for 20 years, so that there will be ample time. Furthermore, the Commissioner of Lands will not extend the lease to the normal 99 years, if no permanent structure has been erected in accordance with his requirements.

14. There are many organisational and procedural aspects to be taken into account. The National Housing Corporation therefore is drafting two manuals; one for the Local Authorities and one for self-help participants.

15. One important aspect for the implementation of site-and-service schemes is the manpower needed. A United Nations' report on self-help schemes estimated that for an ideal sized scheme of 400 plots a team of 10 people was needed for its proper implementation. If we take our target figure of 40,000 plots and assume that each scheme would last not longer than two years, then a staggering figure of 500 qualified people is needed full time. In order to assess this problem our Ministry has conducted a housing questionnaire in the 17 Municipalities and Town Councils and discovered that these Local Authorities are as a whole poorly equipped with manpower. We are also currently re-examining our manpower requirements in both the Ministry and the Corporation with a view to ensuring that we are adequately staffed to facilitate an efficient execution of the housing programmes the Government has planned for the country. Partly because of the structure of our school curriculum, we have had to rely heavily on Technical Assistance personnel and local consultants in the implementation of our housing programmes.

16. The performance of Government sponsored site-and-service schemes as of the end of 1975 is more than 4,000 serviced plots. This has been done in an "ad hoc" way as the Government's policy was not yet fully committed to this approach. It is expected that with schemes such as the 6,000 plot Dandora Community Development Scheme in Nairobi, this development will be accelerated.

17. One aspect to which it would be desirable to pay more attention is that of educating the people in house craft and house utilization. Many of the new occupants of public housing have often come from a rural environment and may need instruction in the correct utilization of the modern facilities which are provided in the form of water-borne sanitation and kitchen equipment. Guidance is needed so that the less sophisticated of our people may acquire practical and elementary knowledge of how to obtain a plot, where to go for financial assistance and how to construct a house suitable to their needs. The housewives, who by tradition run the house, must know the basic principles of home economics, routine maintenance and renovation and simple hygiene. It is interesting to reflect that when one buys, say a radio or a car, one is furnished with information on how to look after it, but when one buys or rents a house one just occupies it on the assumption that the owner or tenant knows all that is necessary to keep it in good condition. In consequence, many things can go wrong because of ignorance of, for instance, the correct use of the kitchen and toilet facilities.

18. Another aspect which should receive our further attention is the need for cheaper loans, especially when the loans come from donor countries. Foreign exchange is always under close scrutiny because the recent inflationary situation the world-over has not improved our balance of payments. Apart from that, as I have said before, earnings have risen at a slower rate than the building prices. Only by providing cheaper loans or grants can this situation be improved. In the case of an interest free loan over 40 years the tenant has to pay 7% of the gross cost of the house against 11.5% where the loan bears an interest of 6.5% per annum. In other words the tenant could afford 64% more value of house. If I may quote the USAID loan interest of 8.7% over 26 years plus 0.5% service charge per annum and 0.5% for the National Housing Corporation allowed for in Section 17 of the Housing Act (CAP.117) the tenant has to pay 15.5% of the gross cost of the house per annum, and can in fact afford 35% less house against the normal Government loan.

19. I would like to conclude my talk by a reference to those people who cannot even afford a site-and-service scheme. These people, who have mainly unstable incomes and whose employment is of an impermanent nature, will be the prospective sub-tenants in these schemes. The Government's planners, however, are considering the problems attached to the provision of plots to this group, so that they too may not feel entirely excluded because of their low incomes. Although this may be a very basic approach, it has the merits of ensuring an element of control from the outset, thus avoiding some of the evils of indiscriminate squatting, as the means for providing services in the future, so when these can be afforded they will have been planned for. One of the present constraints, however, is the availability of State land for this purpose.

20. Mombasa is one Local Authority where a so-called "no grade" development is permitted, enabling a land-owner to sub-divide his plot on which a house, usually of the Swahili type, may be erected which does not conform to any particular building regulation. A similar development is now permitted in Nakuru and the response has been encouraging.

CONCLUSION:

As many of you will have concluded already on the basis of what I have said in my paper, the problem of low-cost housing in Kenya and indeed in all developing countries, is likely to be with us for a long time to come. I have posed questions and attempted to suggest practical solutions in as far as our experience in Kenya is concerned, and it is my sincere hope that this experience will be a subject of discussion in the course of your Conference in Nairobi. We in Kenya have no ready

answers and solutions to the many problems that we experience in our sincere endeavour to provide suitable accommodation to our urban dwellers. We are prepared to learn from others and would consequently be very interested to see the final recommendations of this Conference on this very important subject. It is also my sincere hope that this conference will leave no stone unturned nor any avenue unexplored in its endeavour to find solutions to the many problems surrounding the development of Low-Cost Housing.

Thank you.

DISCUSSION:

A dialogue followed concerning the possible pooling of resources by African countries in order to stabilize and reduce interest rates on housing loans. It was felt to be a good idea and should be discussed at the UN's Habitat Conference in Vancouver, Canada.



THE FIFTH WORKING SESSION

Foreground left to right: Mr. P. S. Gujral and Mr. B. S. Rihal – from Kenya.

SIXTH WORKING SESSION

Chairman: Peter Kimm, USAID/Washington, D.C.

Participants: James Christian, USA
George Cardis, USA

Presentation of Paper by James Christian

Presentation of Paper by George Cardis

Discussion

Country Presentations

HOUSING FOR LOWER-INCOME FAMILIES: MACROECONOMICS AND FINANCE

by James W. Christian, Ph.D., Vice President, Financial Systems, National Savings and Loan League, USA

I. INTRODUCTION

We are all aware of the dimensions of the housing shortages we face in our respective countries. We are also aware, I believe, that while these shortages exist for virtually all income groups, they are felt most acutely by the low and moderate-income groups.

In my remarks today, I will approach the issue of bringing about a housing supply-demand equilibrium for low and moderate-income groups from the point of view of the economy as a whole. In so doing, I will attempt to make the following points.

First, housing investment can, under appropriate financial arrangements, contribute as much, and in some cases more, to economic growth and development as “productive” investments in nonresidential construction and in machinery and equipment. Therefore, housing investment can justifiably be included among those activities at the leading edge of a nation’s development efforts.

Second, the specific financial arrangements under which these beneficial economic effects can be realized are ones which serve to mobilize domestic savings and to provide long-term mortgage lending.

Third, the financial infrastructure required to mobilize domestic savings and to grant and administer long-term mortgage loans is the principal means through which the *effective* demand—as distinct from the *need*—for housing can be expanded, not just to the middle-income groups but to low and moderate-income groups as well.

Fourth, reaching low and moderate-income groups through the financial infrastructure can be accomplished by innovative approaches to mortgage lending, some of which are now being employed successfully in Korea, Chile and Jordan.

And finally, the role of foreign financing is best viewed as a temporary substitute for domestic saving and as a means of gaining the time and the technical assistance to establish the type of financial infrastructure which can serve the housing needs of *all* the people.

II. ECONOMIC EFFECTS OF HOUSING INVESTMENT

Until recently, most economists writing and working in the field of economic development were inclined toward a grand design for development which featured export promotion, import substitution and industrialization. The agricultural sector was viewed as a great repository of surplus workers whose contribution to economic growth and development could not be made unless they were absorbed by a dynamic industrial sector. Moreover, the size of the domestic market for industrial output was felt to be too small--primarily because the people were too poor--to provide an economic justification for the investment in plant and equipment. Lucrative markets were to be found, however, outside the domestic economy, in the international market. Thus, if the output of the mines and the factories could be sold to the rest of the world, which *could* afford to buy, there would be an international transfer of income from the rich nations to the poor and the domestic markets of the poor countries would expand as their incomes grew. Rising demands expressed by the people in developing countries would initially be satisfied by imports from other countries, and the pattern of importation would determine which domestic industries should be expanded to replace the imports and give new impetus to growth and development.

As to agricultural development, the solution was seen in terms of adopting modern technology, which meant, in many cases, the consolidation of land holdings and the redistribution of surplus labor from the agricultural to the industrial sector. Surplus labor in agriculture was viewed not only as perpetuating traditional, inefficient techniques of production, but also as holding down agricultural income. Providing jobs for surplus agricultural labor in urban factories producing output for the international market would therefore allow agricultural production and income to rise; and since the surplus agricultural labor would also be employed more productively in the industrial sector, the incomes of all would rise.

Housing was treated in this grand design as something which would take care of itself; if income could be made to grow, the market for housing would naturally expand, and since there was thought to be no sophisticated technology involved in building houses, the housing supply would expand readily to meet the demand.

It is, of course, in the nature of grand designs to overlook a few details. That is, in part, why we are all here today.

It is difficult, however, to fault certain basic elements of this grand design. The recognition of the need to take advantage of existing markets, first through export promotion and then through import substitution, was reasonable and provided for the easy extension of the approach to the creation and expansion of domestic markets.

It was a mistake, however, to overlook for so many years the potential of housing investment for creating domestic markets and thereby promoting the growth and development of the domestic economy.

Recent economic research has shown that housing investment can contribute as much to economic growth and development as "productive" investments in nonresidential construction, machinery and equipment, principally by generating the income and employment required to expand domestic markets.

Inasmuch as the rural-to-urban migration anticipated by the grand design for economic development has taken place and is still continuing today, there is a tremendous need for housing and for jobs throughout the developing world. Housing investment meets both these needs and the way in which housing investment serves the need for employment generation is especially important.

Housing investment is a labor-intensive activity, utilizing a much higher proportion of unskilled and semi-skilled labor than most industrial production processes. Consequently, a large construction effort offers the promise of employing a higher percentage of surplus labor migrating from rural areas than most industrial activities.

The absolute amount of housing investment which can be undertaken, however, depends critically on at least two factors--the availability of financial resources with which to make the investment and the *effective* demand, as distinct from the *need*, for the housing units. For completeness, we might add a third and a fourth factor, the availability of land and the ability of the construction industry to build housing. The question of land acquisition is really beyond the scope of this discussion, however. Moreover, in most countries, there is not only an abundance of construction labor, but the supply of local building materials is also sufficient or can be expanded rapidly to meet the demand. For present purposes, then, the critical factors remain financing and effective demand.

The distinction to be made between need and effective demand is that effective demand means that both the willingness *and the ability* to buy the product exists. Expanding the scale of housing investment to meet housing needs and to realize the beneficial economic effects of housing investment on growth and development therefore means mobilizing the necessary financial resources and expanding the *effective* demand for housing.

Expanding the effective demand for housing means, in turn, reaching down through the range of income groups. Failing to reach the lower-income groups therefore limits the potential of housing investment to generate income and employment for the total economy.

III. EXPANDING EFFECTIVE HOUSING DEMAND

One of the most widely used methods of increasing effective housing demand is the long-term mortgage loan. Yet many developing countries lack the specialized institutions to provide this type of financing. Consequently, effective housing demand tends to be limited to the wealthy who can gain access to commercial bank loans, usually on three to five-year terms at commercial rates of interest.

It is worth noting at this point how extending the term to maturity from, say, five years to twenty years serves to expand the effective demand for housing. The level monthly payment on a five-year loan of US\$1,000 at 10% interest is US\$21, while a twenty-year loan of US\$1,000 at 10% interest requires a monthly payment of less than US\$10. Assuming that 25% of a family's income is devoted to the mortgage loan payment, monthly income requirements per US\$1,000 are lowered from US\$85 to US\$38 by increasing the term to maturity. Thus, it is clear that the adoption of long-term mortgage financing can greatly expand effective housing demand. This approach has special implications for low and moderate-income families in at least two ways.

First, since housing construction and the domestic industries to which it is most closely linked are labor-intensive activities employing a relatively high proportion of unskilled and semi-skilled workers, it has the particularly beneficial effect of expanding employment opportunities for lower-income groups.

Second, the administration of long-term mortgage loans requires an institutional framework, a financial infrastructure, comprised of technically qualified and experienced personnel, armed with established procedures for judging the credit-worthiness of the borrowers, for disbursing and accounting for loan funds, and for collecting loan payments as they fall due. This financial infrastructure can provide the means for extending long-term housing finance to lower-income families.

The principal long-term lending technique now being used to expand the effective housing demand of lower-income families is the escalating payment mortgage. To illustrate, the AID Housing Investment Guaranty Program in Korea is employing escalating payment mortgages which initially lower monthly payments from US\$9 per US\$1000 for a level payment mortgage to US\$5 per US\$1000 at the same rate of interest and term to maturity. As in Chile and Jordan, where escalating payment mortgages are also being used, the monthly payments for these mortgages are adjusted upward periodically so that the ultimate return approximates that for a level payment mortgage and so that the increased payments by the home owners correspond roughly to the growth of their incomes. In this way, the use of escalating payment mortgages recognizes the dynamics of family income growth at the same time that it helps to close the gap between housing need and effective housing demand.

IV. SAVINGS MOBILIZATION

Given the financial infrastructure, the obvious constraint on mortgage lending is the availability of financial resources. Therefore, savings mobilization is essential in any approach to expanding effective housing demand. Conceptually, it makes little difference whether these resources are mobilized through the tax structure, through a postal saving system, or as funds placed on deposit with the lending institution itself. Experience with developing countries in all parts of the world has taught us, however, that mobilizing savings for housing investment is most effectively accomplished when the saving function and the lending function are lodged in a single institutional entity--a national housing bank or a savings and loan or building society system--since the identification of a savings institution with mortgage lending facilitates the mobilization of savings.

There is among these considerations a happy coincidence of circumstances. Typically, the largest source of untapped savings in a developing country is that of individual families, for commercial banks tend to specialize in serving the needs of business enterprises. Concurrently, obtaining decent housing is one of the most cherished goals of individual families. Therefore, a financial institution whose lending activities are specialized in long-term mortgage lending to facilitate the achievement of this goal can successfully mobilize as new savings the idle financial resources of these families. Moreover, the loan repayment flow also constitutes savings and provides a revolving fund through which loans can be extended to still more families.

Other approaches are, of course, possible. Postal savings systems offer the convenience of a nationwide branch network and there is no reason why such savings could not be channeled into housing finance, given an institutional framework for loan administration. The tax system also provides a means of mobilizing financial resources for housing investment.

It should be noted, however, that tax system approaches are too often associated with subsidization schemes, particularly when housing for lower-income groups is involved. Subsidies for lower-income housing are, of course, granted with the very best of intentions and usually in the interest of expanding the housing market.

In fact, however, the most common effect of large-scale subsidization is to limit the expansion of the market by eliminating part of the loan repayment flow and, hence, restricting the availability of funds for relending.

Therefore, while the source of the savings flow channeled into housing investment need not necessarily be a matter of great concern, the savings must be recovered through loan repayment to provide the ever-expanding pool of financial resources needed to sustain the expansion of the housing market.

Given the need for an institutional infrastructure to administer mortgage loans, however, the optimal approach is to vest in it the responsibility for savings mobilization as well as loan administration.

Such an institutional framework cannot, of course, be created overnight. Preparing and enacting legislation for the establishment of housing finance institutions, recruiting and training personnel, preparing and implementing operating procedures and nurturing the flow of new deposits all take time and dedicated effort, as well as advance planning and, usually, technical assistance.

It is for these reasons that I would urge the inclusion of financial planning and programming as explicit elements of national housing policies.

Preparation of a sound, feasible national housing policy is a large undertaking. Similarly, the successful implementation of a national housing policy, incorporating both the physical and financial elements of that policy, must be carried out on a relatively large scale, one which is appropriate to the housing need.

A variety of constraints may be encountered in the implementation of a national housing policy--land may not be available in large tracts or the capacity of the building materials industry may have to be expanded; but, usually, the most significant constraint is financing.

The existence of a financial constraint is the principal reason why the mobilization of domestic savings is so important to the expansion of the housing market, to increasing both effective housing demand and effective housing supply to serve the needs of lower-income families as well as middle-income families.

It was mentioned earlier that family savings is typically the largest source of untapped savings in a developing economy. But to persuade families to depart from their traditional patterns of saving, a convincing case must be made that housing finance institutions will, in fact, make long-term mortgage loans and that housing units appropriate to the needs and tastes of the people will, in fact, be built and sold at prices they can afford to pay. Such a case can usually be made with good planning, good management and a strong initial effort in the implementation of the national housing policy; it usually cannot be made with a token effort.

When families have been convinced that these things will happen, they have shown a remarkable capacity to save. The housing finance systems of Latin America are ample proof of this proposition. Although the systems of these countries were established at various times, the earliest began less than twenty years ago. In this short span of time, the combined assets of the Latin American housing finance systems have grown to more than 12 billion dollars. Moreover, the evidence indicates that the deposits which support this asset base are primarily new savings; they have not been obtained at the expense of other financial institutions.

Although such results can derive from a strong initial effort in implementing the national housing policy, the initial effort itself requires a block of financial resources which may or may not be available from domestic sources.

V. THE ROLE OF FOREIGN FINANCE

When domestic sources of funds prove to be insufficient, it is only logical to seek foreign financing for the program. From the point of view of a national housing program, foreign finance can provide the resources necessary for the initial effort. Moreover, foreign financing through official international lending agencies, such as the U.S. Agency for International Development and the World Bank, carries with it the technical assistance usually needed to

establish and develop the housing finance systems which can mobilize domestic savings for the continuation and expansion of the nation's housing effort.

Foreign finance is treated as a part of the total savings available to the economy for investment. The growth of domestic savings serves to offset the outflow associated with the repayment of the foreign loan, thereby contributing to a permanent increase in total savings.

Since housing investment requires very little foreign exchange because most construction materials are produced domestically, a successful program of savings mobilization for housing can rapidly create a housing sector which is independent of external assistance at the same time that the expansion of the housing market provides both housing and employment for middle and lower-income families.

Virtually all of the Latin American housing finance systems which were mentioned earlier were established with foreign technical and financial assistance, primarily through the U.S. Agency for International Development. Most of these systems are now independent of foreign assistance and are making a significant contribution to satisfying the housing needs of their respective countries.

It is in this context that foreign financing of housing investment can, I believe, have its most important impact. As a temporary substitute for domestic saving, foreign financing offers the means of carrying out the national housing policy's program of housing investment while the nation builds its financial infrastructure.

MICROASPECTS OF FINANCE FOR LOW-INCOME HOUSING

by George P. Cardis, Director, International Division, The Institute of Financial Education, USA

Mr. Chairman, distinguished delegates and guests:

I am pleased to have this opportunity to address the Third Conference on Housing in Africa. I also welcome the opportunity to personally meet you all.

The subject which I am going to discuss has a rather imposing sounding title--"Microaspects of Finance for Low-Income Housing." What it really means in more understandable language is, "How a Loan for Low-Income Housing can Be Made Economically Viable." Or putting it in still another way, "What needs to happen for a lender to get his money back when a home loan is made to a low-income family."

As most of you know, having struggled for years with the immense problem of housing the poor, this is not an easy task--and this is not an easy subject to talk about. However, I think it beneficial to walk through the process of making home loans to low-income people--wherein we can hopefully define some of the problems or obstacles to economic viability, and perhaps glean some insights towards overcoming or avoiding them.

Our subject begins once the first housing loan is made. That usually means a "construction loan" which is just for the short period of time of actual construction--or until the home is sold to the permanent user. When this sale or transfer from *constructor* to *user* is made, a longer-term loan sometimes called an "end loan" or a "permanent loan" is made. The permanent loan is usually amortized over a long period of time . . . somewhat coinciding with the economic life of the property.

Specifically then, the main subject we will discuss is the recovery of these funds at these two stages:

1. Short-term -- construction loan
2. Long-term -- permanent loan

The first stage, the construction loan, has the enviable position of having an easy solution to the problem of recovery since the permanent loan "pays off" or "takes out" the construction loan in a relatively short period of time. These types of loans are sought after by commercial banks and mortgage bankers all over the world. Many times these interim loans where they involve low-income housing are also guaranteed by the national government--and thus are made even more attractive to the lender.

However, at this point, the easy part is over. The considerations for the second stage, the long-term permanent loan, are enormously more complicated, especially for low-income housing. Unfortunately for the industry I represent--the thrift, savings and loan associations or building societies--the bulk of the permanent loans and their difficulties fall into its area of activity.

What are some of these difficulties? Well, first of all, I'd like to redefine them as obstacles to the money recovery process, because long-term permanent loan recovery is a long, continuous operation, month after month and year after year.

We have therefore, five main obstacles to this money recovery process for low-income housing. Let us briefly identify them.

1. Breach between dwellers' disposable income and cost of dwelling
2. An effective home financing system
3. Borrower instability
4. Mortgage servicing and collections
5. Upkeep and/or maintenance of property values

The first obstacle, the "breach" or "gap" between available disposable income and the actual costs of low-income housing is quite formidable. Some very quick arithmetic using an old "rule of thumb" relating a man's income with the price of a house he can afford--that is 2-1/2 times gross income per year, soon points out the problem.

If one takes the average cost of the most economical homes built in one's region, relates it to the income required--and then compares that income requirement with the actual income of the population--in most cases, it soon becomes evident that 50% or more of the population cannot conventionally afford even the most economical home--and hence the existence of the "breach" or "gap."

In general, low-income housing is intended to mean housing for those families where the above mentioned "gap" exists--and that, in most cases, these housing needs can only be met with some form of public involvement; the private sector or private marketplace cannot serve this group alone.

This line of reasoning then brings us up against the second large obstacle--"An effective home financing structure," or the availability of home mortgage loans to people of modest and low incomes. Since we are now concerned with families who cannot afford even the lowest priced house on the private market, the extent to which this type of housing could be provided is a function of available resources. In developing countries the resources are simply not available in sufficient amount to meet the needs, especially if this minimum priced house on the private market is used as standard. If these standards were adopted, for most underdeveloped areas, this would mean some heavily subsidized houses for only a small amount of those in need.

Rather than accomplishing only this, it is apparent that any effective housing finance structure must meet the needs of more people, and thus, these limited public funds must be spread more thinly--over a larger area, with the objective of drawing on other techniques and resources to stretch the effective reach of the program.

Once the financing framework is structured, the next large obstacle appears. How can you find, or how can you make, an acceptable borrower? Or, what do you do about "borrower instability"?

At this point, some of the imponderables, the intangibles inherent in the human personality, come to bear. Strange as this may sound to any banker or lender, these are very important factors. Any loan requires a future commitment on the part of the borrower to pay it back. Therefore, any thoughtful lender will consider what the borrower could do in the future before lending him some money.

After we have answered that question we soon come upon the difficulties of collections and mortgage servicing. Some of the finest low-income housing programs, in terms of concept, design and structure, have collapsed in the face of this problem. In a sense, it is the "moment of truth" for any program financing low-income housing. Will it work? Will the payment be made? In full? What about administrative cost? Delinquency rates? There is no question but that the viability of

collecting monthly mortgage payments from low-income people is really seriously questioned by many lenders all over the world.

Finally, we arrive at the last obstacle, the reasonable “maintenance of property value” over the life of the loan. Unfortunately, an identifying characteristic of many low-income housing projects has been poor maintenance and rapid obsolescence of property. Also, rapid deterioration of the loan collateral or loan security; and most lenders--who in most cases have quite strong fiduciary responsibilities--get very nervous when they think of this problem.

Here we have, in a sense, our obstacle course defined relative to providing mortgages for low-income housing.

Can we overcome them? If so, how? Well, there are no patent, or easy answers. We have approached this problem by taking a slightly different course, that is, we have sought out some of the more successful programs, where performance is good or where performance once was poor, and significant improvements made. By so doing, it was possible to glean some insights into a more positive concept of providing housing and mortgages for low-income people.

First and foremost, it is necessary to have the full support and sustained cooperation of national and local governmental bodies and their respective departments of ministries related to housing. In short, there must be no lack of authority to implement a program. If you can't get that, then there is not much hope for a low-income housing program.

Second, and also absolutely essential, is a consistent, capable, well-staffed administrative team, with a well thought-out, well-planned program.

The sum of the above two necessary essentials is a truly capable staff with the authority to see the program through to completion.

The next step is how you approach a low-income housing program. No doubt there is more than one successful approach, but consider this one if you don't have one that is better:

1. Do not give your architects a free hand in developing your program.
2. Start with your basic program requirements and budget *before* any design ever gets on paper or on the drawing board. In other words, do *your* homework before you give it to the architect.
3. Determine your targets--mainly the *income group* you are aiming at, and what the *building cost* should be; this is determined by the “disposable income for housing” of your target group. In other words, determine how much of a Principal Loan this disposable income would amortize over a 20-, 25-, or 35-year period. This will give you the amount of money you have to spend per unit.
4. Let the architects and builders tell you what can be done for that amount of money.
5. If a satisfactory housing unit cannot be produced for that amount of money--then determine some alternative solutions, and their costs.
6. From the costs of these or alternative solutions you can determine the size of the “breach” or “gap,” depending on which alternative is chosen.
7. Begin to consider schemes to reduce or eliminate the “gap.”

Let us consider some of these schemes:

1. Instead of amortizing for a 15- or 20-year period, consider a *35-, 40-, or even 50-year amortization period*. This will reduce the size of the monthly payments.
2. *Lower interest rates* would reduce the size of monthly payments. Perhaps government could subsidize the difference between that and the market rate.
3. A substantial cost is always involved in the *land*. Many times the government may already own land and can be persuaded to provide it for low-income housing for a nominal sum or lease it for 50 years or more.
4. In addition to the raw land, there are the *improvements* (sewer, water, streets, etc.). These can either be financed through a subsidy from the government, can be amortized for 40 to 50 years by a loan or can be paid for in usage charges with government support or guarantee.
5. *Good land planning and building design* can increase the density of units in a project without diminishing ecological or esthetic criteria. The cost of the land and improvements per unit is thereby reduced.
6. *Self-Help Construction* is a resource that can be used to reduce the cost of building a house, if there is a willingness by people to use their own labor to erect their homes, either partially or completely. They either purchase or are given the material for their home and then provide their own labor--sometimes known as "sweat-equity." This is an extremely powerful scheme and if used properly usually results in a high degree, long-term commitment from the people involved, both individually and as a community.

In general, there are three types of self-help programs: First, *The Mutual Self-Help* where people work on their new home after normal working hours and weekends. Second, the *Aided Self-Help* where direct supervision of construction is given on a full-time basis. The third and newest type is called the *Family Self-Help* where improved land including the basic core of a home is made available to a family who can "move in" to the core and then, with materials provided for them, finish the house. This basic core can be a floor slab with one wall and the bathroom roughed in--just barely enough to allow a family to live there. Materials and technical supervision are provided to finish the house--the cost of which is amortized through a mortgage.

7. *Modular construction on a high volume basis* is yet another way used to reduce construction costs, and the many materials and techniques being used depend to a large degree on geography and local economics.
8. *The deferred payment plan* is a popular device where payments of principal and interest are started low and then gradually stepped-up over the life of the mortgage, instead of using the more common fixed mortgage payment rate over the life of the mortgage. This makes it easier for people to get started, to get into the program. The lender, of course, hopes that the borrower will earn more in the future.
9. The technique of the *disappearing interest subsidy* is used where government gives a direct subsidy to the new home owner. Instead of just reducing the price of a home, this technique eliminates the interest portion of the normal mortgage payment for the first one to five years, again making it easier to get started.
10. The *variable mortgage payment plan* is yet another device used. It allows for the mortgage payment to be calculated as a function of income, with the payments changing as income varies.

11. Another very interesting technique to reduce the "gap" for low-income people is the "sites-and-services" approach where squatter settlements are substantially improved by providing land improvements and more sanitary living conditions. This can be done by running utility networks (streets, sewer, power, water), through the squatter areas; or by moving the squatter shacks (usually on the flat-bed of a truck) to a lot on improved land. There the squatter family can live in their shack while, through self-help, they build a new home next to it--or the shack is improved and expanded to a much better dwelling.
12. Finally, we come to the last technique. That is, instead of just reducing the cost of the dwelling--to work on the other side of the equation: to *improve or increase the earning capacity* of the new home owner. This is an intangible factor, but certainly should be immensely important. After all, if a housing program for low-income people does not improve their quality of life and their attitudes, and productivity, then the program cannot be considered to have accomplished its basic objectives.

We have just mentioned twelve schemes to reduce the "gap." There are more, but there are no guaranteed "panaceas" or easy answers. None, many or all of these schemes could be used in a housing program, but it would depend on the unique conditions and restraints that are involved in each project.

In many parts of the world, apart from the other problems of housing for low-income people, there is no home financing mechanism available for feasible housing programs aimed at low-income people, or even the middle-income groups. This was true in Latin America until just a short while ago. Fifteen years ago, home financing in Latin America was possible only for those who could pay 50-60% of the price of the house in cash. The balance had to be financed with a high-interest, short-term mortgage from commercial banks or private finance companies. Fortunately for Latin America, the savings and loan industry was established, first in Peru, then spreading to other countries. In fifteen short years it is now possible for most middle-income people to get long-term home mortgages, and some countries are making these mortgages available to low-income people as well.

There are many alternative ways of providing a financing structure for home financing, but our experience indicates that one of the most effective methods is through a Savings and Loan or Building Society System that is properly supported by government. It is not within the scope of this paper to describe such a System, except to say that any Low-Income Housing Program requires that such a system produce the end result: small down-payment, low-interest, long-term home mortgages, with payments small enough to be within the reach of low-income groups.

Relative to the economic and social instability of this low-income home owner, what we are faced with is the problem of evaluating the credit, or the ability to repay, of a borrower. This is especially critical since we are considering a long-term payback period of probably 25 years or more.

The potential borrower in the lower-income bracket is in all probability now living in some sort of dwelling for which he pays some form of rent and has some expenses, especially utilities. The portion spent on rent and expenses may be a large or small percentage of his total income. However, the most important social aspect is the lack of roots or any compelling reason to stay at the rental property for any extended period of time. Invariably, as some motivating circumstances occur--a move is made, because it is relatively easy. The result is a family unit that is highly mobile--without the desire or ability of saving or owning much. We might say that the life style of this family does not include any saving or ownership habit.

This type of borrower is vulnerable, could be quite unstable over a long period of time and hence not a very good risk for a loan. At this point, government usually steps in to help improve the credit rating of this borrower--usually as a guarantor for the loan.

But it is interesting to note that the previously unstable borrower does not always stay that way. Economically and socially, home ownership usually helps develop stability. The process of owning something of value which can't easily be left behind mitigates against easy mobility. It gives one roots and a sense of permanence. Socially, the pride of ownership, the security, the sense of worth does enormously wonderful things for some people. The deeper one gets into a home mortgage, the more one owns, the more one has to lose, and the pressures mount against irresponsible living. Of all the factors accruing from home ownership perhaps the most interesting is that home ownership tends to keep the family together as an entity, and that factor, "the family unit," is one of the most effective promoters of borrower stability.

Assuming we have been able to design and structure a program to reduce and overcome these previous obstacles, there remains the administrative problem, Mortgage Servicing and Collections. As we have previously mentioned, it is absolutely essential to have a strong administrative team and program. A part of this sound administration would be a realistic collection procedure geared to do the job of getting regular payments--the right amount at the right time.

In order to accomplish this all-important collection task, it is necessary in many cases to modify the traditional "monthly mortgage payment." For example, in rural areas, most low-income people don't receive wages on a regular monthly or weekly basis. Rather, they depend on the crop seasons, and may only be paid 2 or 3 times a year! Mortgage payments should coincide with these payment periods. In short, there are *two general rules* involved here:

1. people can't pay if they don't have the money in their possession, and
2. among their first obligations should be these mortgage payments, before the money is spent on something else.

These same rules also apply to the low-income urban dweller. Perhaps the best institutional collection record in low-income areas has been made by credit unions. The answer to their outstanding collection success is simple--the payments due are deducted from the worker's salary before he gets it, at the regular pay periods, be it weekly, bimonthly, monthly or whatever. Because of this simple and effective collection operation, some housing programs are using credit unions for this purpose.

I observed a collection system being structured in Jamaica where a local credit union was moving its small office to within walking distance of a 300-unit, self-help, low-income housing project. The credit union will serve as collection agent for the project. Of the 300 families who will be living there:

- a) Some are presently working in industries that the credit union serves and will have their mortgage payments deducted.
- b) Those not working in industries covered by the credit union will be required to make regular payments according to their regular pay periods. That is, if a worker gets paid weekly, he will be expected to make 4 or more smaller payments per month. In other words, he pays as he receives money and is not allowed to fall behind very far.

By way of another example, in Panama I observed a different, more sophisticated approach to mortgage collections for low-income housing, but the previously mentioned two general rules were thoroughly applied.

After struggling with collection problems for many years--with very high delinquency rates--the Panamanian system has evolved to where a few years ago a law was passed, enabling the national government to deduct mortgage payments at the regular pay periods, much like income tax or

social security payments are deducted. Identification of the borrower is through a national identification number or a social security number. All employers are required, by law, to deduct and transfer this payment to the appropriate governmental agency, and all borrowers are required, by law, to notify the government of any change in employment.

The Panamanian program is very effective and, although different from the Jamaican system, is similar in its approach.

However, the collection phase is only one part of mortgage servicing, and the best collection systems of even higher-income groups require constant attention and a flexible response to the many day-to-day problems.

Specifically regarding low-income housing, it is essential that an effective information feedback system be operating constantly regarding mortgage status. This can be done by a simple indexed card file or can be a computer printout. The function is the same. That is, payment records are up to date, and when target dates are not met, administrative personnel are aware of it.

As a general rule, in low-income housing it is imperative to respond quickly to any deviation to established collection procedure in order to find out why. This is done to minimize any delinquencies from developing, or if they develop, to keep them as small and as manageable as possible. The reason is quite obvious: People with low incomes find it extremely hard to make up large delinquent payments.

As the delinquent period draws to a close, not only should the reason be determined but a program worked out to "catch-up." In Panama, if the mortgagor notifies of his delinquency his "catch-up" plan is usually a one and a quarter (1-1/4) payment. If he doesn't advise, then he is penalized by a heavier catch-up plan of say one and a half (1-1/2). Hence, there is an incentive for the mortgagor to be cooperative. In general, the collection agency, if properly informed by the mortgagor, makes it a policy to help people through difficult periods of illness or unemployment--but an absolutely genuine desire to cooperate must be demonstrated by the mortgagor.

Another aspect of mortgage servicing for low-income groups is the effective use of a variable mortgage payment to keep the amount of the mortgage payment realistic and feasible. In Panama, for example, the amount of the mortgage payment is calculated to be between 15 and 20% of the total income, can vary from 20 to 60 dollars a month and is controlled by the amortization life of the mortgage, varying from 15 to 40 years. A review of family income is made periodically to see if any changes in the mortgage payment should be made. It is usually adjusted upward as income increases, but can also be adjusted downward to allow for periods of misfortune.

Another interesting aspect of mortgage servicing is the case of a collector, or agent, authorized to collect a payment. This is usually incorporated as a delinquency drags on. In most low-income housing programs the threat of "eviction" must be very real and consistent to act as a deterrent to delinquency. Invariably there are a few families or individuals who will test the system to see how far they can go. In both Jamaica and Panama, the time period from the beginning of the delinquency to actual eviction is about 6 months. This allows time for warnings, legal notices and attempts to salvage the mortgage. If sincere attempts at salvage are not evident, the eviction can come sooner.

If salvage cannot be accomplished, the property is repossessed and sold. Because of the acute housing shortage in most areas, there is usually no lack of potential buyers.

Finally, we come to the last of the large problem areas: "maintaining the property value." In simple banking terms, since the security for the mortgage is the property itself, that collateral must be maintained or the result is a partially or totally unsecured loan.

One of the most obvious precautions has to be for the danger of fire or natural disaster. It is always present and must be insured against. It is essential that an adequate insurance be in force at all times.

By the same token, any property taxes that are due must be paid promptly as there is always a possibility of the property being lost due to defaulted taxes.

Relative to physical upkeep and maintenance of the property, the question of living habits, education and neighborhood or community organizations are paramount--especially when dealing with low-income groups who in all probability have never owned property before.

The best technique developed to overcome this cultural problem has been some sort of community organization with a vested interest in property itself, either as a home owners' association or a housing cooperative. The main functions of these organizations are to get people organized and motivated to maintain, and in many cases upgrade, the physical aspects of their homes and the common areas such as streets, parks, schools, utilities, etc. These organizations also provide a means to supply services such as garbage removal, exterior building maintenance, grounds maintenance and emergency assistance, among others.

Of course one of the most meaningful services such organizations offer is the training and educating of their members, especially in the critical areas of living habits and problem solving. The potential here is enormous--and the vehicle for training is excellent.

The objectives of the lender and government should be to develop some sort of community structure or mechanism. If an effective community organization can be developed, it is the single most powerful tool to maintain property values.

In brief, an economical self-help mechanism for upkeep and maintenance of property values can thereby be created, with the potential for training and motivating people to improve their living habits and increase their economic and social value. In low-income programs especially, a small investment by the lender or government in starting and supporting such organizations is, in most cases, an extremely wise investment that pays for itself many times over.

By way of concluding this brief talk, I would like to reiterate something I mentioned at the beginning--that this problem of viably housing low-income people is an old problem--with few previous solutions, outside of outright subsidies or public housing by government.

The problem really boils down to one of numbers. The success of a low-income program can be measured by comparing the number of dwellings produced with the monetary resources that were used to create them. Hence, with more participation by the borrower, the lender and government can spread their limited resources over a larger area--creating more dwellings with the same given resources. If the money recovery process works--then this recovered resource can be used for more low-income housing, and so on.

Realistically speaking, perhaps with some low-income groups it may not be possible to recover 100% of all costs--but if a program is designed to recover 2/3 or 3/4 of costs, then theoretically 3 to 4 times as much housing can be provided.

Another item worth considering is that if the upper levels of the low-income groups are serviced first, as they upgrade themselves, they will be leaving behind a dwelling that can be used for another less fortunate family, thus upgrading the second family as well. The main thing is to provide new housing units somewhere in the low-income spectrum: those families with the motivation and ability will take advantage of the opportunities to improve their situation.

There is, I think, increasing optimism concerning low-income housing, that it can be much more effective than it has been in the past. In its favor are some of the basic economic realities of lending for home ownership.

First is the fact that a home loan is collateralized or secured by the value of the property--land and building. Second, as the home owner slowly pays back his loan, the security position of the lender and government is improved because the loan is reduced and the reduced balance is still secured by the full value of the property.

Finally, the pressure on the borrower to make his payments increases with each month as the borrower has more and more to lose. In a relatively short period of time, he simply cannot allow his dwelling, his investment, to be lost.

This point was graphically illustrated to me in Jamaica where, in the collection procedure for delinquent loans, after a grace period and official notice, a large sticker which reads "Repossessed" is put on the door of the dwelling--and an unofficial 7-day period is allowed for people to recover their property prior to their physically being evicted and losing it. With this final and dramatic gesture, invariably a satisfactory payment program is developed. Somehow the home owner finds a way! He simply cannot allow this investment and his equity to be lost! It is sheer folly to allow this to happen . . . and actual evictions are quite infrequent.

In other words, this entire process, slowly but inexorably, creates a change in the living habits, both social and economic, of our borrower. As he begins to own more and have more to lose, his attitudes and habits also change--and all in favor of the lender, the government and the future of low-income housing.

I would like to close this brief talk by saying that the needs of the poor are most vivid. The situation of many poor people dramatizes an urgent need to do more, and with the spectre of an ever increasing population compounding an already enormous problem . . . whatever is done needs to be done quickly as well!

It is, therefore, absolutely essential that the resources for housing low-income people be used most effectively. I hope that some of the ideas discussed here will be of some help in this task . . . Thank you.

DISCUSSION

A question followed that in order for low-income people to be able to make payments, it might be necessary to reduce rates, payment amounts, etc., but would these reduced payments be acceptable to building societies or savings and loans?

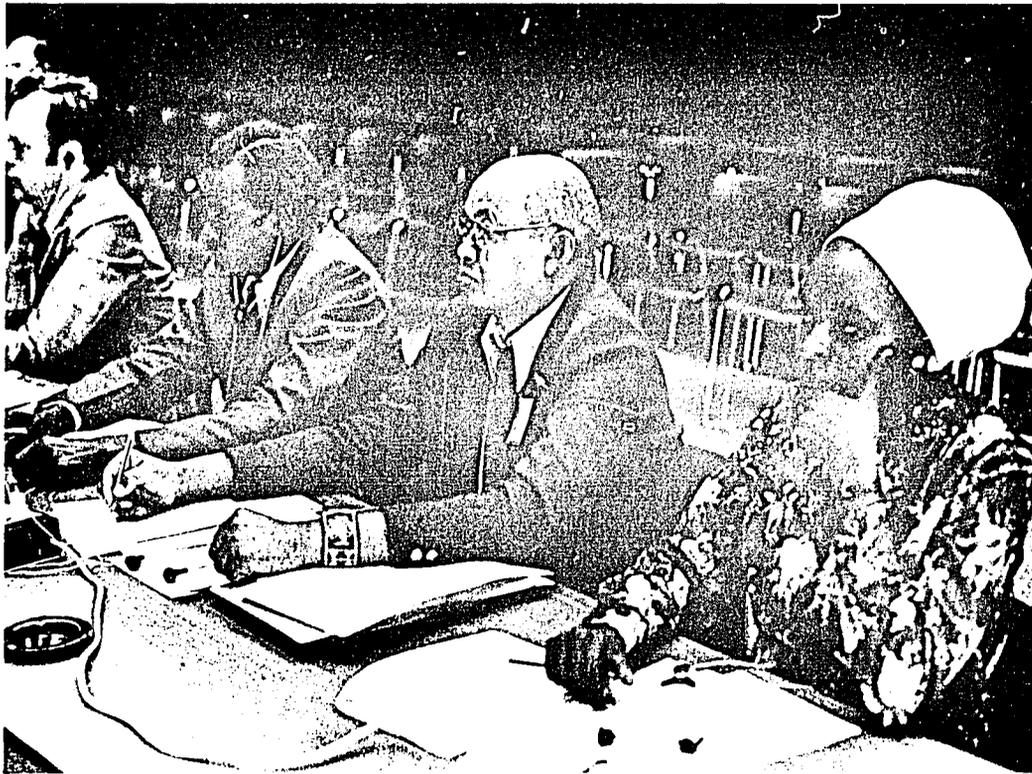
The answer was no; it cannot work if the building society is absorbing this burden all by itself. In other words, the building society is a financial intermediary--it borrows money at one rate and lends at a slightly higher rate--the difference covering operating expenses, hopefully leaving a modest surplus. If the building society has to lend at a special low interest it would soon be out of business. One answer is that the public sector has to get involved with the private sector on a cooperative basis and make the necessary adjustments so it can work.

Another question related to where mortgages do not exist--What then? The answer had to be some sort of commitment on the part of the buyer to pay back the Government. In low-income housing it may be later and in installments, but it must be paid or eviction should result. Otherwise you don't have a viable housing program.

Yet another question dealt with rural people who are not familiar with long-term commitments and feel that after they have paid for 3 or 4 years, that's enough. The answer is training and education--both before and during the entire amortization period.

A comment was made about the practice of charging the higher-income groups a higher rate of interest than the lower-income groups, to help makeup part of the payment difference. The interest rate is calculated as a variable related to the value of the home.

A conclusion of the session was that the threat of eviction has to be real and constantly in force--otherwise the discipline of making payments breaks down. In lower-income housing finance there is no substitution for good administration.



THE SIXTH WORKING SESSION

Foreground left to right: Mr. S. Nironen, U.N.; Dr. P. J. Odhiambo, Mr. Abraham Coleman and Mrs. Miriam Chege – from Kenya.

COUNTRY PRESENTATIONS

Brief closing statements were then heard from the following delegates representing their respective countries and organizations:

- BOTSWANA – Mr. D. Richardson, General Manager, Ministry of Local Government and Lands
- ETHIOPIA – Dr. A. Beyene, Civil Engineer, Ministry of Public Works and Housing
- GABON – Mr. C. Biffot, Directeur de l'Habitat et de Urbanisme
- GHANA – Lt. Col. K. A. Jackson, Commissioner, Ministry of Works and Housing
- IVORY COAST – Mr. J. Konan-Ferrand, Directeur Général, SICOI
- JORDAN – Mr. Zuhair Khouri, President, Jordan Housing Bank
- KENYA – Mr. G. J. Njau, Chief Planning Officer, Nairobi City Council
- KENYA – Mr. J. D. Nyaseme, Deputy Chief Architect, National Housing Corporation
- KENYA – Mr. B. S. Rihal, Chief Estates Officer, Ministry of Housing & Social Services
- LESOTHO – Mr. A. M. Mapetla, Permanent Secretary, Ministry of Finance.
- LIBERIA – Mr. Hillary Dennis, President, National Housing & Savings Bank
- MAURITANIA -- Mr. M. Cissoko, General Manager, Société de Construction et de Gestion Immobilière
- MAURITIUS – Mr. J. Valadon, Secretary, Housing, Mauritius Housing Corporation
- NIGERIA – Dr. O. A. Onikoyi, Chief Architect, Lagos State Development and Property Corp.
- TANZANIA – Mr. Peter A. Tarimo, Land Valuer and Surveyor, Tanzania Housing Bank
- ZAIRE – Mr. N'Gole Iliki, Directeur Général, CNECI
- ZAMBIA – Mr. C. P. Katele, Senior Member of Town, National Housing Authority

The following is a summary of these brief closing statements:

All the delegates thanked the National Housing Corporation, the Nairobi City Council, the Ministry of Housing and Social Services, the Government and people of Kenya and especially Mr. Ayany for their warm welcome and hospitality, and a special acknowledgement was given to Mr. Peter Kimm and the Office of Housing of the Agency for International Development for their sponsorship of the Conference on Housing in Africa for the third consecutive year.

The closing statements suggested that the Conference itself is an outstanding forum for exchanging ideas and stimulating thinking about mutual housing problems. It was also felt that the conference should be held on a regular basis, perhaps even more frequently than once a year and for a longer period of time to allow for more open discussion.

It was also agreed that the housing problem for the low-income group requires a lot of energy, brains and imagination to find the specific solutions for each country with its traditional available raw material. Certainly miracles are not going to solve the problem, only the hard work and effective cooperation of the interested parties.

It was also felt that consideration should be given to the creation of a Housing and Planning Fund through the respective Development Banks. This fund could form a support for the low-income housing program in Africa.

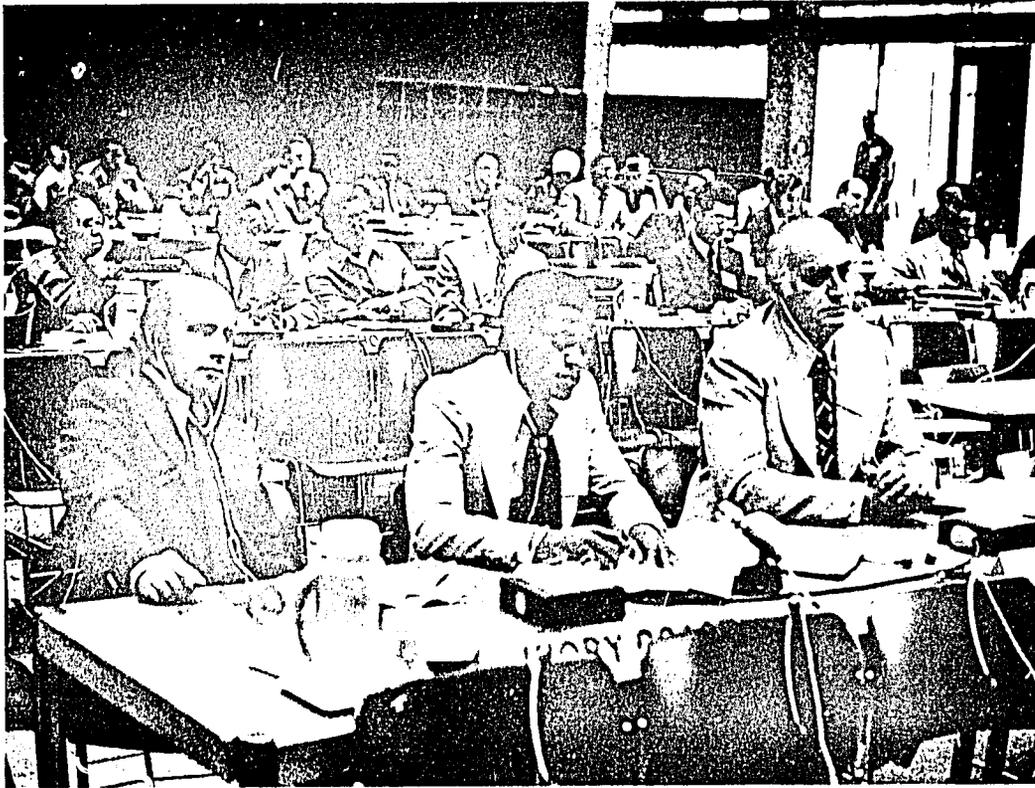
The closing statement suggested that duplication of research and development experience within Africa be eliminated and where possible, between African nations and other international groups. It was felt that better communication between African organizations was essential.

It was suggested that there must also be a breakthrough in construction techniques for housing, especially relating to low-income groups.

There was general agreement that self-help programs and sites and services programs are not only interesting but represent one of the most effective solutions to housing the low-income group.

It was also suggested that a permanent secretariat be established for the Conference on Housing in Africa to continue contact with responsible officers of the various countries. This permanent secretary and continuous contact could also lead to better use of audiovisual aids at future conferences.

In general the delegates were pleased with the results of the Conference and have encouraged AID to increase its salutary efforts in Africa.



THE COUNTRY PRESENTATIONS AND CLOSING SESSION

Foreground left to right: Mr. M. Mucelli, Mr. S. Acquah – from the Ivory Coast, and Mr. Zuhair Khouri – from Jordan.

CLOSING SESSION

**PERMANENT SECRETARY,
OFFICE OF THE PRESIDENT**

MR. GEOFFREY KARIITHI, KENYA

CHAIRMAN, CONFERENCE WORKING COMMITTEE

MR. S. G. AYANY, KENYA

CHAIRMAN

MR. PETER KIMM, USAID/WASHINGTON, D.C.

Mr. S. G. Ayany gave a brief closing statement, thanking all the delegates for participating. He also noted that this was the Third Conference on Housing in Africa held and the best so far. He expected the next one to be even better as everyone is gaining more experience. He complimented the participants who presented excellent papers and suggested that those papers be studied further when the delegates returned home.

Mr. Ayany also felt that the time was too short for all the material presented and interest generated. He would like to see the Conference extended to 10 days. Again he thanked the delegates and wished them a safe journey home.

Mr. Peter Kimm thanked Mr. Ayany for all the fine work he and his committee had done to make this Conference such a success.

CLOSING STATEMENT – THIRD CONFERENCE ON HOUSING IN AFRICA

SUMMARY OF REMARKS BY PETER KIMM, DIRECTOR, OFFICE OF HOUSING, WASHINGTON, D.C.

In summary, each country will have to do its best to solve its individual housing problems since, between now and the end of the century, there undoubtedly are difficult urban problems to be dealt with as a result of the enormous urban growth. There are no easy answers, and new solutions will have to be developed as the old solutions will not work. If there is a logical approach to the housing problems, it would have to include the following components:

1. The creation of an organization or unit to develop a strategy
2. The development of the strategy for financing and building the housing and related facilities
3. Training programs to develop capable people
4. The development of demonstration projects

In trying to summarize the conference, I think there is a clear consensus that it has been beneficial and that it should be repeated next year. There is a need for a conference secretariat which we will try to promote and report on at next year's conference. There were some suggestions that the conference was too short with too many subjects to discuss and not enough time. It was suggested that workshops or individual sessions to cover more subjects might be the answer rather than making the conference longer. We will take these under consideration for next year's conference. Also, there was a clear indication of the need for improved research efforts and a better exchange of information between countries. In this regard, AID will try to inventory available research and will work with the UN in setting up a system to make this information available. We will have a report on this for you at next year's conference.

Finally, I want to remind you that USAID has two Regional Housing and Urban Development Offices in Africa--one in Abidjan, Ivory Coast, and one in Nairobi, Kenya--and they are there to assist you in anyway they can, so please take advantage of them.

In closing, I want to acknowledge the excellent job that was done by our hosts; the Kenya National Housing Corporation, the Ministry of Housing and Social Services and the Nairobi City Council. Also, I want to extend my personal appreciation to my good friend and co-chairman, Sam Ayany, who's individual efforts did so much to assure the success of this conference.

MR. JOSEPH GITHENJI, REPRESENTING MR. KARIITHI AND THE OFFICE OF THE PRESIDENT, READ THE FOLLOWING CLOSING MESSAGE

The Kenya Government has committed itself to the concept of site and service schemes as the only pragmatic approach to providing shelter for the poor. The concept, if properly planned, allows for the standards of service and structures to be raised in line with the people's improving incomes and standard of living.

Providing conventional housing by direct means is becoming increasingly difficult. We must consider a corporate approach to housing--its problems and solutions. There is need for a concerted, fully comprehensive approach to housing by the governmental, local authority and non-governmental agencies.

Providing shelter has a multiplying effect on the national economy as it creates a need for interaction between those institutions charged with satisfying the needs of the people.

One aspect of a housing scheme which needed to be given earnest thought was the need to encourage and foster a community spirit among the plot holders. The papers discussed during the conference had a common theme and the consensus was that officially planned solutions which seek to meet low-cost housing needs by the orthodox conventional ideas of yesterday are never likely to meet with success.

Only by tapping the latent resources of our people and assisting them to use their own ingenuity and initiative in self-help, can we ever hope to fulfill the ambitions of the poor man in the street to own a house.

I hereby declare that the Third Conference on Housing in Africa is closed.



**A HOUSING CONFERENCE WOULD NOT BE COMPLETE
WITHOUT A NEW HOUSING GUARANTY PROGRAM.**

Left to right: Hon. Anthony Marshall, Mr. W. Neal Goodson, Her Worship Miss Margaret Kenyatta, Mrs. Marshall, Mr. Kimm, Mr. Andrew Ngumba, and Mr. M. Yusuf.



Third African Conference On Housing
Nairobi April 1976.

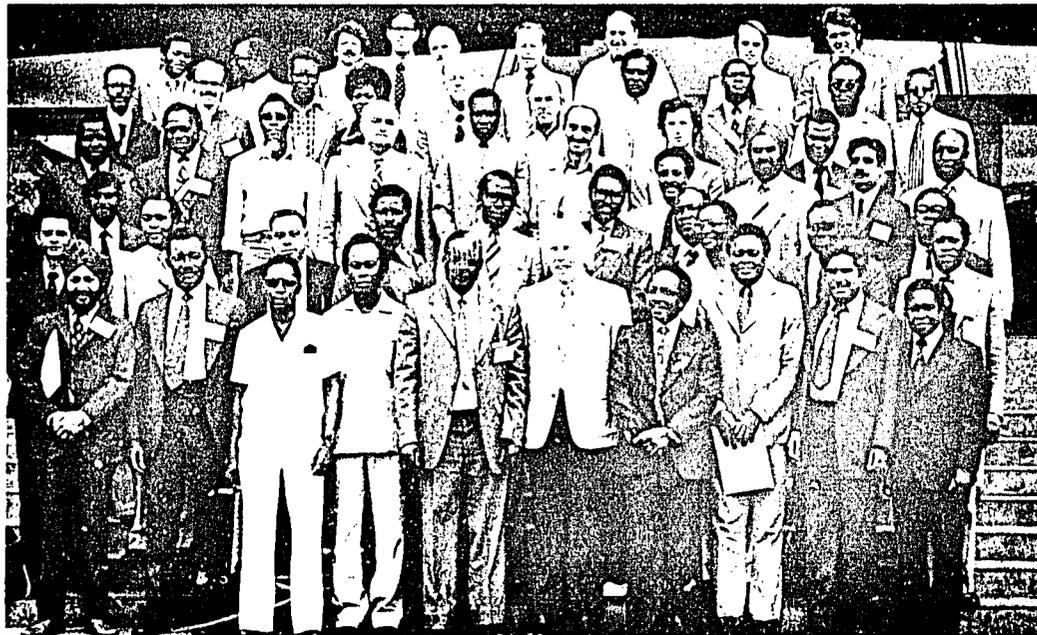
IT WAS NOT ALL WORK--A TYPICAL EARLY EVENING COCTAIL PARTY
Left to right: Mr. G. M. Matheka and Mr. G. K. Mwobobia with Mr. Peter Kimm.



Third African Conference
Nairobi, April

SOME MORE GOOD CONVERSATION

Left to right: Mr. George Cardis, U.S.A.; Mr. N. S. Mwenja, Kenya.



A GROUP PORTRAIT

PARTICIPANTS LIST

HOSTS: Her Worship The Mayor, Councilor Miss Margaret Kenyatta, City Council of Nairobi
Hon. Taaita Toweett, M.P. Minister for Housing and Social Services
Mr. S. A. Ayany, General Manager, National Housing Corporation
Mr. George M. Matheka, Permanent Secretary, Ministry of Housing and Social Services

AGENCY FOR INTERNATIONAL DEVELOPMENT

Mr. Charles Nelson, Mission Director, USAID/Kenya
Mr. Peter Kimm, Director, Office of Housing, Washington, D.C.
Mr. Donald Gardner, Deputy Director, Office of Housing, Washington, D.C.
Mr. E. I. Donoghue, Deputy Director, AID/W, Washington, D.C.
Mr. W. N. Goodson, Chief, Regional Housing and Urban Development Office, Nairobi
Mr. Paul Campbell, Housing Consultant, FCH Services, Inc., Washington, D.C.
Mr. George Cardis, Director, International Division, The Institute of Financial Education, Chicago
Mr. James Christian, Vice President, National Savings and Loan League, Washington, D.C.
Mr. J. Lippe, Consultant, Washington, D.C.

UNITED NATIONS

Mr. E. Paul Mwaluko, Director, UN Centre for Housing, Building and Planning
Mr. Eric Carlson, Deputy Director, UNEP, UN Habitat and Human Settlements Foundation
Mr. S. Nironen, Advisor in Housing, UN Economic Commission for Africa
Mr. Gurer, Senior Program Officer, UNEP/Housing

BOTSWANA

Mr. B. Makobole, Permanent Secretary, Ministry of Housing and Lands
Mr. D. Richardson, General Manager, Botswana Housing Corporation

ETHIOPIA

Dr. A. Beyene, Civil Engineer, Ministry of Public Works and Housing
Mr. Frank Pavich, USAID
Mr. Tessen Demissie, Head Accounts Department, Housing and Savings Bank
Mr. Sakari Nironen, Advisor in Housing, Housing and Savings Bank, UNECA

GABON

Mr. C. Biffot, Directeur de l'Habitat et de Urbanisme

GHANA

Lt. Col. K. A. Jackson, Commissioner, Ministry of Works and Housing
Mr. E. Hornsby Odoi, Managing Director, TEMA Development Corporation

Mr. Edward Afriye, Managing Director, Bank for Housing and Construction
Mr. Danson Manu, Secretary, Bank for Housing and Construction
Mr. H. N. Quao, Deputy Chief, Bank of Ghana
Mr. J. Rockson, Mortgage Manager, State Insurance Corporation
Mr. I. Inusah, Estates Manager, State Insurance Corp.
Mr. Isaac Andoh, Ghana News Agency

IVORY COAST

Mr. J. Konan-Ferrand, Directeur Général, SICOGI
Mr. D. S. Nandjui, Directeur Général, SOGEFIHA
Mr. S. Acquah, Directeur Administratif, SOGEFIHA
Mr. M. Mucelli, Directeur Adjoint, SICOGI
Mr. L. Kone, Chef Technique, SICOGI
Mr. A. N. Votaw, Représentant Régional de l'Habitat, USAID
Mr. P. Holmes, Conseiller sur l'Habitat, USAID

JORDAN

Mr. Zuhair Khouri, President, Jordan Housing Bank

KENYA

Her Worship The Mayor, Councilor Miss Margaret Kenyatta, City Council of Nairobi
Hon. Taaita Toweett, M.P. Minister for Housing and Social Services
Mr. George M. Matheka, Permanent Secretary, Ministry of Housing and Social Services
Mr. J. P. Mbogua, Town Clerk, Nairobi City Council
Mr. S. M. N. Rionge, Chief Architect, Nairobi City Council
Mr. G. J. Njau, Chief Planning Officer, Nairobi City Council
Mr. N. S. Mwenja, City Engineer, Nairobi City Council
Mr. P. S. Gujral, Chief Asst. Engineer, Nairobi City Council
Mr. M. Yusuf, Project Director, Nairobi City Council
Mr. Z. K. Okuku, Nairobi City Council
Mr. Z. K. Kariuki, Nairobi City Council
Mr. C. N. W. Siganga, Director, Social Services and Housing, Nairobi City Council
Mr. Ichoya J. M. Jonan, Planning Officer, Nairobi City Council
Mr. C. G. Wangie, Assist. Town Clerk, Nairobi City Council
Mr. S. G. Ayany, General Manager, National Housing Corporation
Mr. J. D. Nyaseme, Deputy Chief Architect, National Housing Corporation
Mr. Baljit Singh Mangat, Chief Engineer, National Housing Corporation
Mr. J. J. Van Straaten, Engineer, National Housing Corporation
Mr. Gilson Maina, Programme Officer, Kenya National Housing
Mr. B. S. Rihal, Chief Estates Officer, Ministry of Housing and Social Services
Mr. A. J. Marshall, Chief Technical Officer, Ministry of Housing and Social Services
Mr. Muteru, Housing Planner, Ministry of Housing & Social Services
Mr. K. Ball, Chief Architect, National Housing Corporation
Mr. E. Ndegwa, Physical Planner, National Environment Secret.
Mr. Z. W. Rakama, Town Clerk, Kakamega Municipal Council
Mr. Ojwang'K'Ombudo, Town Clerk, Kisumu Municipal Council
Mr. L. K. Madungha, Town Clerk, Tnika Municipal Council
Mr. Kurt Petersen, Architect, Kitale Municipal Council
Mr. Mulaku, Engineer, Kitale Municipal Council
Mr. G. K. Mwobobia, Town Clerk, Neru Municipal Council
Mr. E. Musazi, Engineer, Eldoret Municipal Council

Mr. N. Githire, Architect, Nakuru Municipal Council
Mr. J. Mahia, Deputy General Manager, H.F.C.K.
Mr. J. M. Wambua, General Manager, H.F.C.K.
Mr. L. J. Pandit, Managing Director, East African Building Society
Mr. N. K. Krishnan, Architect, Mombasa Municipal Council
Mr. F. G. Ndungu, Chief Building Insp. Mombasa Municipal Council
Mr. J.G. Waweru, Architect, Waweru and Associates
Mr. J. Stempski, Senior Planner, Project Planning Associates Ltd. of Toronto, Canada
Mr. Kinweli, Senior Assistant Sec., Ministry of Finance and Planning
Mr. Otto Kaszner, Architect, H.R.D.U. University of Nairobi
Mrs. Miriam Chege, P.C.D.O. Nairobi City Council
Mr. E. P. Makenja, Assistant Engineer, Water Development
Mr. K. Gheewala, Managing Director, Housing Schemes Limited
Mrs. M. C. Hoek-Smit, Research Fellow-Sociologist, H.R.D.U. University of Nairobi
Miss M. S. Muller, Research Fellow, H.R.D.U. University of Nairobi
Mr. Abraham B. Coleman, Project Engineer-Dandora Community Dev. Programme, Nairobi City Council
Mr. I. G. Wanjohi, Dandora Project Manager, Nairobi City Council
Mr. J. E. Eijgelaar, Senior Research Fellow, H.R.D.U. University of Nairobi
Mr. Philip John Meir, Research Fellow, H.R.D.U. University of Nairobi
Mr. A. Ngotho, Chief Architect, Ministry of Works
Mr. Anderson, Director of Housing Research Unit, University of Nairobi
Dr. P. J. Odhiambo, O.O.T.U. (K) Nat. Co-op Off. O.O.T.U.
Mr. Makenja, Asst. Engineer, Water Development
Mr. Daniel O'Laughlin, African American Labor Center, Ministry of National Env. Secretariat
Mr. J. N. Gould, African American Labor Center, Ministry of National Env. Secretariat
Miss E. K. Kimweli, Water Development

LESOTHO

Mr. A. M. Mapetla, Permanent Secretary, Ministry of Finance
Mr. Qhobela, Permanent Secretary, Ministry of Interior
Mr. S. H. L. Motsamai, Assist. Secretary, Ministry of Finance

LIBERIA

Mr. Hillary Dennis, President, National Housing and Savings Bank

MAURITANIA

Mr. M. Cissoko, General Manager, Société de Construction et de Gestion Immobilière

MAURITIUS

Mr. J. Valadon, Secretary, Housing, Mauritius Housing Corporation
Mr. S. Soondrum, Engineer, Mauritius Housing Corporation

NIGERIA

Dr. O. A. Onikoyi, Chief Architect, Lagos State Development and Property Corp.

TANZANIA

Mr. Peter A. Tarimo, Land Valuer and Surveyor, Tanzania Housing Bank

ZAIRE

Mr. N'Gole Iliki, Directeur Général, Caisse Nationale d'Epargne et Credit Immobilier (CNECI)
Mr. Henry Boldrick, Housing Finance Officer, CNECI
Mr. Philip Casteel, Capital Project Officer, USAID/Kinshasa

ZAMBIA

Mr. Adamson, Permanent Secretary, Ministry of Local Government and Housing
Mr. C. P. Katele, Senior Member of Town, National Housing Authority