

ABSTRACT

Workshop on Land Delivery and Infrastructure Options for Low Cost Housing in Zimbabwe: Report of Proceedings

December 4-6 1990

This report contains the proceedings of a workshop on land delivery and infrastructure options in Zimbabwe. The general objective of the workshop was to review the procedures and issues affecting the provision of surveyed and serviced land in the country as well as review building standards/infrastructure options and land utilization.

The specific objectives of the workshop were:

- 1) To facilitate inter-agency discussion of the major set of issues involved, namely:
 - land acquisition procedures, prices and land banking
 - financing of land delivery by public and private sectors
 - planning layouts and cadastral surveys
 - building and infrastructure standards
 - land utilization policies
- 2) To identify possible solutions to the constraints noted under the above issues.
- 3) To draw up and adopt recommendations aimed at resolving the above problems.

The emphasis of the workshop was on problem resolution and commitment to future action.

MINISTRY OF PUBLIC CONSTRUCTION AND NATIONAL HOUSING
GOVERNMENT OF ZIMBABWE

WORKSHOP ON "LAND DELIVERY AND INFRASTRUCTURE
OPTIONS FOR LOW COST HOUSING IN ZIMBABWE"
REPORT OF PROCEEDINGS

Held at Club Mazvikadel, Zimbabwe 4-6 December 1980

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United Nations Centre for Human Settlements (Habitat)
United States Agency for International Development
(Regional Housing and Urban Development Office - ESA)

WORKSHOP ON "LAND DELIVERY AND INFRASTRUCTURE OPTIONS FOR
LOW COST HOUSING IN ZIMBABWE"

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APPENDIX I : LIST OF PARTICIPANTS

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1. INTRODUCTION

1.1. Background

Zimbabwe is currently facing a national housing shortage. It has been calculated that over the period 1926 - 2000, between 167 000 to 270 000 dwelling units will have to be constructed in the country's urban areas. This would be necessary to meet the existing housing backlog, replace substandard units and meet the growth in the urban population. Approximately 77% of these units are needed by low income households.

Major constraints facing housing delivery are:

1. Indadequate provision of surveyed and serviced land as a result of a number of bottlenecks in the administration of the land delivery system. These bottlenecks not only reduce the rate at which serviced land becomes available for development but also results in higher eventual costs of high density (low cost) housing.
2. Limited human and institutional resources.
3. Escalating costs of building materials and construction equipment.

1.2. Objectives of Workshop

The general objective of the Workshop was to review the procedures and issues affecting the provision of surveyed and serviced land in the country as well as review building standards/infrastructure options and land utilisation.

The specific objectives of the Workshop were:

- (1) To facilitate inter-agency discussion of the major set of issues involved, namely:
 - a. land acquisition procedures, prices and land banking;
 - b. financing of land delivery by public and private sectors;
 - c. planning layouts and cadastral survey;
 - d. building and infrastructure standards;
 - e. land utilisation policies.

- (2) To identify possible solutions to the constraints noted under the above issues.
- (3) To draw up and adopt recommendations aimed at resolving the above problems.

The emphasis of the Workshop was on problem resolution and commitment to future action.

1.3. Procedures of Workshop

The Workshop emphasised the important contribution that could be made by the representatives present from various agencies and their combined experiences in low cost housing delivery programmes. To facilitate these individual contributions, the following procedures were used:

A number of background papers were presented which attempted to highlight the issues involved. After each of these individual background presentations the Workshop participants broke up into smaller working group sessions and discussed issues in more depth. The nature of these group discussions was coordinated in two parts:

1. The first task of the groups was to identify the major constraints or problem areas within each area of concern of that group. The method selected for this was that each group would initially identify a chairperson and a recorder. Thereafter each individual group member was given a few minutes to write down three constraints that they felt to be most important.

Each individual then presented one of their constraints to the whole working group. The recorder wrote down each of these constraints on easel paper which was taped up on the walls of the working group room. These presentations were extremely brief and did not involve long speeches or justification.

Thereafter the group discussed each of the constraints presented and attempted to arrive at consensus on four to six key constraints that it would present the plenary session. These key constraints were then stated in short phrases and written in large letters on easel paper for presentation to the plenary.

The chairperson was then asked to present the group's key constraints to the plenary for further discussion. At this plenary session some constraints were modified or omitted depending on the consensus of the plenary as a whole.

Thereafter the groups broke up once again into their smaller work group sessions and attempted to generate

recommendations to each of the key constraints identified in the previous session.

The method used to generate these recommendations was very similar to that used during the constraints group work. Each person in the group was again given a few minutes to write down three recommendations (actions/strategic steps) to deal with three of the key constraints. One recommended action from each person was then briefly presented to the group and noted down on easel paper by the recorder. After each person had contributed their one recommendation, additional recommended actions were written down if they had not already been mentioned.

Thereafter there was group discussion of these recommendations and the group attempted to reach consensus on a comprehensive set that would cover all aspects dealing with each constraint. The number of recommendations was again kept short, preferably not more than six key recommendations for presentation to the plenary.

These key recommendations were then written in large letters on easel paper and put to the plenary.

At a final, concluding plenary session a summary of all group recommendations was presented. These recommendations had been grouped by the conference facilitators into key headings: general recommendations, recommendations concerning standards, and finally recommendations concerning policy. The plenary then spent some time in considering each and every recommendation in detail and deciding as to whether or not each could be implemented and by which implementing agency. It was this final set of recommendations that the full plenary adopted.

2. INTRODUCTORY SPEECHES

2.1. Address by Mr. S. Soielman, Deputy Director of the USAID Mission to Zimbabwe.

Mr. Soielman noted that until recently the United States had been the largest single donor in the low cost housing field in Zimbabwe. It had provided US\$50 million to service 20 000 plots in 10 towns across the country. USAID was in favour of facilitating private sector involvement (for example emerging businesses) in low cost housing delivery systems. The private sector was able to bring innovative ideas, concepts from other countries and new thinking on old problems into play. The role of the private sector needed to be expanded.

USAID further believed that the basic issues facing low cost housing delivery systems were:

- (1) maintaining affordability - this is related to technology choices, involving the private sector and other means of stretching the dollar further;
- (2) individuals having a choice over what to build so as to satisfy their individual needs and aspirations;
- (3) improved accessibility to financing. It was necessary to reduce bureaucratic bottlenecks in the process of making financing available.

Major problems facing the Zimbabwean low cost housing sector at the moment were:

- (1) supply of building materials, particularly those with a forex content;
- (2) the need for more trained manpower;
- (3) the need to simplify regulations and procedures so as to make the climate easier for people to build their own houses.

2.2. Address by Mr. V. Wahlroos, UN Centre for Human Settlements (HABITAT), Nairobi Regional Office Representative

Mr. Wahlroos welcomed the timing and objectives of the Workshop. He stressed that different settings required different options and solutions to be explored. For example the standards adopted for large cities may well be unnecessarily constraining when setting policy for smaller secondary towns and growth points.

Habitat was further concerned that government's role in the low cost housing sector should be that of facilitator and not provider: people themselves are ready to build for themselves and government's role should be merely to facilitate the wherewithall to catalyse this building process.

2.3. Opening Address by Minister E.C. Chikwore, Minister of Public Construction and National Housing

The Minister's opening address was read of his behalf by Mr. Vengesayi, Deputy Director of Engineering Services, Ministry of Public Construction and National Housing.

The Minister stressed the importance of the Workshop in that it was the first comprehensive review of housing policies in the country for some time. He called upon participants to commit themselves fully to the tasks that they had to face in the Workshop.

The backlog of housing in the country was one of the biggest problems facing low income households in their day-to-day living. Added to the issues of numbers of houses required and affordability (i.e. cost of the houses) was the fact that the urban centres were sprawling ever outwards. This resulted in increased travel times between work and residences. Many low income households wasted several hours a day waiting in bus queues.

The Minister welcomed the objectives of the Workshop, thanked the USAID and UNCHS (Habitat) sponsors of the Workshop and wished participants success in their deliberations.

3. SUMMARY OF WORKSHOP PAPERS PRESENTED

3.1. Background Paper Presented by the Ministry of Public Construction and National Housing

The Ministry presented a comprehensive set of background figures on the levels of urbanisation of the Zimbabwean population and the housing requirements of the nation.

By the year 2000 it was estimated that the national population would be 12 million people of which over 50% were expected to live in urban areas. The following figures indicate the estimated growth in urban population:

1995 :	4,5 million urban residents
2000 :	6,2 million urban residents
2005 :	8,0 million urban residents

In 1990 there were an estimated 1 377 000 dwelling units in both urban and rural areas throughout the country. 560 000 of these dwelling units are located in urban areas. Of these, 6% (32 000) are considered to be substandard and in need of redevelopment or upgrading. 217 000 dwelling units are in the rural areas; 15% are in need of improvements.

The Ministry has estimated that by the year 2005, 1 million dwelling units will be required. 69% of these would be needed in urban areas; 31% in rural areas.

Exacerbating this backlog of houses is the earning capacity of low income households in the country. Those households earning the minimum wage of \$130 per month can hardly afford to purchase a serviced stand. A household has to earn \$550 per month in order to afford a dwelling of \$10 000 to \$12 000. At 1989 costs, the average cost of a serviced stand was \$4 500; thus only \$6 000 would be left for building a superstructure.

The Ministry then presented some figures on average household incomes as they related to affordability levels of the population. 50% of rural households would only be able to afford housing of \$4 000. 50% of households living in medium sized towns can afford housing of up to \$14 000 per unit; however the building costs of a four roomed core - the present minimum standard, are now \$18 000. Only 40% of households living in bigger towns can afford a four roomed core house; only 25% of households in rural areas can afford this four roomed core.

90% of all households across the country can only afford the costs of an \$8 000 house. 60 - 70% of these households already on the waiting lists of the major cities (Harare and Bulawayo) cannot afford a four roomed core house. There was therefore need to review this current minimum standard in the light of the policy of providing housing for all households.

Discussion from the floor:

1. Land Acquisition by Government on behalf of smaller Local Authorities was constrained by the fact that government could only afford very low buying prices. Therefore many willing sellers in peri-urban areas became unwilling.
2. Central government ministries (in particular the Ministry of Local Government, Rural and Urban Development and the Ministry of Finance Economic Planning and Development) were charged with not taking the land needs of local authorities seriously enough.
3. A note of caution was sounded on the issue of land banking. Local authorities may acquire land and then sit on it without putting it to productive use - thus contributing to urban blight. Under these circumstances it would have been better to have left the land for farming purposes. Also, given the time lag between the purchase of land and the actual use of land it was noted that local authorities would be saddled with the costs of outlay of capital and accumulating interest without getting direct returns on the money invested in the land.

A further difficulty with respect to land acquisition was noted in that suitable building land inside and adjacent to the larger cities is already well developed and thus attracts high, speculative prices. However it seemed to be general consensus that the basis on which some valuations are carried out, especially by central government valuers, are unrealistic.

4. It was suggested that a multi-disciplinary unit be created in all local authorities. This unit would be specifically tasked with the responsibility of identifying land needs and making discreet approaches in a business like manner to owners of suitable land. Thereafter they would report their findings to Council who would make the decision of whether or not to proceed with land acquisition.

3.2. "Land Acquisition: Delivery Procedures, Land Banking and Funding" by Mr. G. Eutcher, Eng. Inst. Zimbabwe

It was noted that there are various different estimates of the nation's housing needs. However there seemed to be general consensus as to the order of magnitude if not the detail of this need. The total housing demand (in both urban and rural areas) for the period 1986 - 2000 was 1 9550 000 units. The urban housing demand over this same period is for 270 000 dwelling units. Of this the low income urban housing demand over the same 15 year period is 129 000 dwelling units. This means that 13 000 dwelling units need to be built every year in the urban areas for a period of 15 years in order to meet demand.

Land for high density housing in the urban areas is acquired and serviced primarily by the following agencies:

1. Municipalities

Municipalities are empowered in terms of Section 76 of the Urban Councils Act to acquire land within or outside of the municipal area for high density housing and other urban development needs. They have full autonomy in this regard unless the land in question falls outside of a Master Plan boundary. In this case the matter must be referred for approval to the Minister of Local Government, Rural and Urban Development so as to ensure that land is not acquired on an ad hoc basis but in accordance with sound town planning principles.

Municipalities have to follow laid down procedures in acquiring land and in preparing layouts and commissioning cadastral survey of the land prior to putting services.

These procedures take an average lead time of up to two years or more. (Please refer to Figure 1).

2. Other Urban Councils, Local Boards, Rural Councils Urban Settlements

Land in these areas for urban purposes including high density housing is acquired on behalf of the local authorities by the Ministry of Local Government, Rural and Urban Development (Urban State Land Office). In these situations the land delivery procedures are extremely long, involving numerous agencies (please refer to Figure 2). The average lead time in acquiring land and getting it ready for building developments is usually three years or more.

3. Private Developers

Private developers may acquire land on the open market and develop it for high density housing provided that the land is zoned in terms of an Operative Town Planning Scheme or Master Plan for high density housing. Alternatively, where an operative town planning scheme does not exist, the local authority may still approve the development if it is in conformity with other land uses in the area.

The land delivery procedures followed by private developers are much shorter than in the case of public sector developers and can take as little as eight months to complete. Given the present shortages of serviced land available many local authorities are now offering to sell raw land to private developers (including housing cooperatives) who must then survey and service at their own cost.

Main Issues

1. Availability of Raw Land:

With the inevitable encroachment of urban uses onto adjacent farm lands the general case (with the possible exception of Harare) appears to be that of willing sellers approaching the responsible authority to buy their land. Disputes and delays thereafter are typically with respect to the price to be paid/land values rather than that there are no willing sellers.

In instances where a town seeks to expand onto adjacent farm land and the owner of that land is unwilling to sell, there are adequate legal statutes (in the form of the Urban Councils Act and the Land Acquisition Act) for the responsible authority to compulsorily purchase that land. To date these statutes have not been made full use of because court arbitrations are required and these tend to be lengthy.

**FIGURE 1: LAND DELIVERY PROCEDURES
FOLLOWED BY MUNICIPALITIES**
AVERAGE LEAD TIME : 1.5 - 2 YEARS

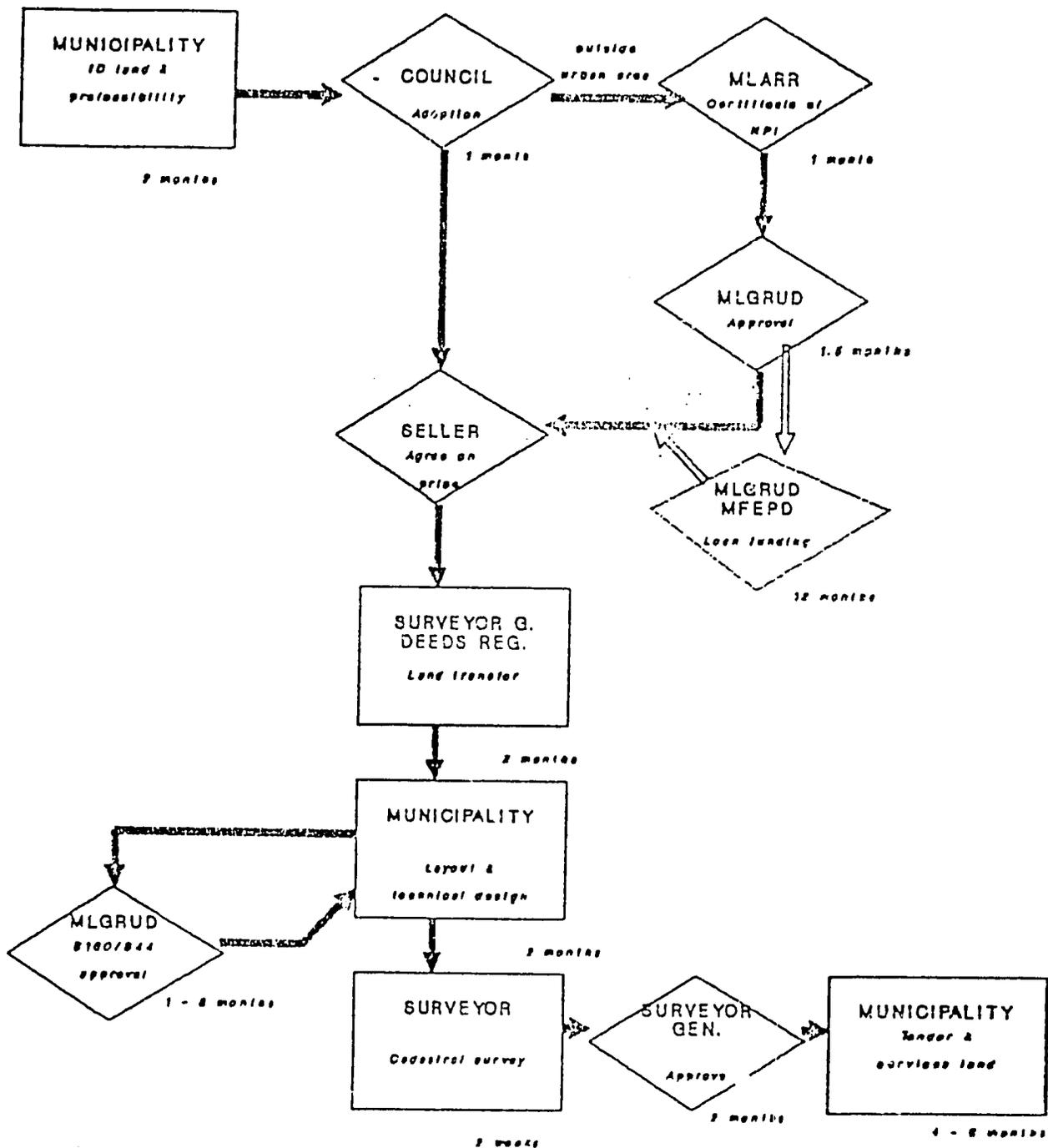
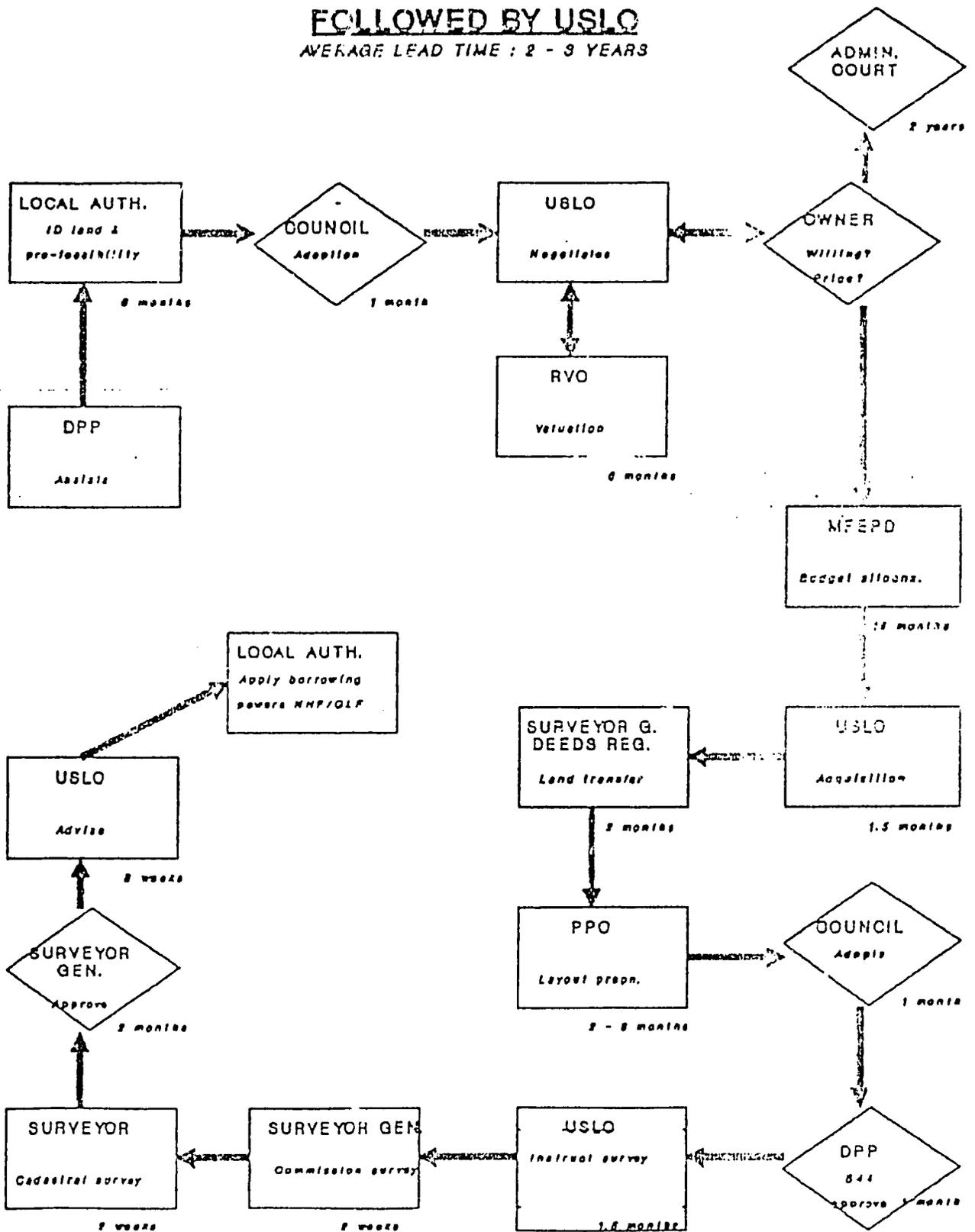


FIGURE 2: LAND DELIVERY PROCEDURES

FOLLOWED BY USLO
 AVERAGE LEAD TIME : 2 - 3 YEARS



2. Land Banking:

The consultant came across no examples of local authorities which have clear forward planning programmes for high density housing expansion and which have adequate reserves of land to meet the development needs of the medium term future.

In part this is due to fact that municipalities inherited large comanages from the State at the time of attaining municipal status. It is only recently that land availability has become a hindrance to housing delivery.

In part too, urban growth rates in Zimbabwe have only rapidly accelerated over the recent past. Many local authorities are only now, faced with rapidly growing populations, realising the need to acquire more land.

This deleteriousness has been reinforced by the attitude MFEPD on which many of the large and all of the smaller urban centres rely for funds to purchase land. The MFEPD seems to have taken a conscious decision not to allocate funds for land acquisition until the need of a particular centre is critical.

Forward carefully controlled, land acquisition programmes would keep prices down and to some extent regulate the supply of land for development.

3. Identification of Land:

The onus is on local authorities to keep a record of their land needs and to initiate procedures for land acquisition. At present many local authorities are only flagging the need once the problem has become acute. Furthermore many smaller local authorities are unaware of the requirements of providing a written justification report to the Ministry of Local Government, Rural and Urban Development to initiate land acquisition procedures.

4. Land Prices:

Many delays are caused by disputes over the selling price. (Please refer to next section).

5. Regional Valuation Offices:

There is serious understaffing in these offices which often means that there can be up to six months delay in valuation of land being carried out.

6. Treasury Funding:

The MFEPD is reluctant to allocate funds for land acquisition well in advance of development: it is against land banking. Furthermore depending on national priorities, bids for land acquisition funding or servicing are frequently only successful on the second or third submission (i.e. 2 or 3 years later).

7. Preparation of Planning Layouts:
(Please refer Paper 3.4.)

8. Cadastral Survey:
(Please refer Paper 3.4.)

9. Approval of Borrowing Powers for Servicing Land:
(Please refer next section.)

Draft Recommendations

(i) Availability of Raw Land:

Noting that the availability of raw land for urban expansion is not a problem faced by most local authorities and that there are adequate legal statutes in place for the compulsory expropriation of land where necessary, it is recommended that no further action or policy review be called for.

(ii) Land Banking:

(a) Noting that most urban local authorities have enjoyed large commonages and low growth rates in the past but that they are now facing rapid expansion and the need for more land, it is recommended that local authorities be exposed to the concept of and need for medium-term, controlled land banking programmes.

(b) Noting that most urban local authorities are dependent on the Central Treasury for funds to purchase land (either directly or through USLO) and that MFEPD only allocates funds when land acquisition is critically needed, it is recommended that the concept of and need for medium term, controlled land banking programmes be further explored with officials within the MFEPD.

(iii) Identification of Land:

(a) Noting that the onus for initiating land acquisition procedures lies with local authorities and that there is a tendency for local authorities to wait until the last moment to initiate these procedures, it is recommended that local authorities be trained in preparing medium term land use and service infrastructure expansion plans as a framework (albeit non-statutory) for identifying suitable land for future acquisition.

(b) Noting that many local authorities are not familiar with the detailed procedures to be followed in land acquisition, it is recommended that local authorities receive training in the areas of land identification,

land banking and land acquisition procedures. Various fora might be suitable for such training, including Urban and Rural Councils Associations' Annual Conferences, ZIPAM (Public Services Training Centre), USAID project towns training programmes and specially formed urban management workshops.

(iv) Land Prices:

Draft recommendations on land prices are made in the Section below.

(v) Delays in the RVO:

- (a) Noting that the valuation of properties for acquisition takes many months, it is recommended that a separate, supplementary professional services vote be opened in USLO to pay for the services of private valuers. Valuations carried out by private valuers would be subject to checking by the RVO in much the same way as the Surveyor General currently approves the work of private land surveyors or the Director of Physical Planning recommends the approval of layouts prepared by municipal or private planners.

SOURCING FUNDS FOR THE ACQUISITION AND SERVICING OF LAND

1. Municipalities:

The 12 Municipalities generally keep separate Reserve Accounts for new land acquisitions. Theoretically they sell serviced stands to beneficiary households at present day market values and this money goes into the Land Sales Accounts - rolled over for future land acquisitions. However in practice land sale prices are pegged at low levels and as well as that the state is given free allocations of land for its requirements. Therefore it is doubtful whether many reserves accounts are efficiently rolling over.

Of the 12 Municipalities only Harare and Bulawayo are permitted (with authority from the Ministries of Local Government, Rural and Urban Development and Finance and Economic Planning and Development) to borrow on the open market.

All Municipalities are permitted to borrow from the Building Societies. However this must have the approval of the Ministry of Local Government. In the past the Ministry has been reluctant to make this approval (exceptions being Harare, Gweru, Redcliff and Chitungwiza) as it argues that the Building Societies charge higher interest rates than

does government and that these interest rates would have to be recouped at the expense of beneficiaries.

2. Smaller Local Authorities

The Urban State Land Office (MLGRUD) keeps a separate Land Acquisition Vote and makes yearly bids to Treasury on the basis of requests received from the smaller local authorities. The actual amounts granted by Treasury are extremely small - for example in 1982/89 the vote was a mere Z\$200 000 for all land purchases throughout the country. As in the case of the municipalities, but more so, land sale prices to individual home owners are generally very low, ranging from Chitungwiza: Z\$1,65 per square metre to Chipinge: Z\$1,00 per square metre. (These prices include servicing costs - road access and reticulated water to the stand boundary. The intrinsic land values are therefore only approximately 25% of the above figures).

When applying for funds to provide services on the land, local authorities borrow from the General Loan Fund (MLGRUD) for bulk supplies and from the National Housing Fund (MPCNH) for on-site reticulation of services.

National Housing Fund Applications:

The local authority makes annual bids to MPCNH. The Ministry pools the bids and submits them to MFEFD which in turn makes cuts and allocations. MPCNH then decides on industrial allocations to be made to each local authority. Thereafter the local authority applies for borrowing powers during which the MPCNH vets layouts building plans services etc. At the same time the MLGRUD tries to marry the two vote allocations and the local authority's overall ability to repay its loan. The application is then sent to the Minister of Local Government for approval.

On approval, loans may then be drawn down if the procedure has been completed within the same financial year. If not, there is the risk that funds will be returned to Treasury.

General Loan Fund Applications:

The local authority submits its bid to MLGRUD which sends it on to the Minister for approval. Thereafter the bids are sent to MFEFD which cuts and allocates. The local authority is notified of the amount it has been allocated and it then submits a formal borrowing power application. As the Minister has already seen this application, the approval is automatic and the funds may be drawn down.

Main Issues

(i) Land Charges:

Illustrative of the local authorities' and state's somewhat laissez-faire attitude towards land as a key element of housing programmes, is the amounts charged by the authorities for land (the Intrinsic Land Value).

This ranges from the probably realistic market price in Harare of Z\$1,20/m² to the extremely low rate of Z\$0,25/m² charged in centres such as Chipinge, Rusape and Karoi. Land prices are infrequently reviewed and are based on out-of-date market values of the property rather than on the replacement value.

Given that agricultural land around the country is increasing in value over time, neither local authorities nor the state are able to build up reserve funds for future land acquisitions. Many local authorities are reliant on Treasury funds for this. To some extent therefore, there is a central Government subsidy on the land prices paid by beneficiaries.

It should be noted that at present land constitutes a mere 1% of the total costs of a serviced, 4 - roomed core house. If the land price were as much as doubled (on a par with, for example, prices charged by the City of Harare), this would still only constitute 3% of the total costs of a serviced house. It would therefore be unlikely to have a significant impact on the affordability of beneficiary households.

As long as land is seen as a cheap commodity that does not pay for itself, local authorities and central Treasury will be inclined to treat it as a low priority. This in turn leads to ad hoc forward planning, unnecessarily high infrastructural development costs and uncertain future financing of land acquisitions.

A final issue under land charges is that of land set aside (ultimately to the beneficiaries' expense) for schools and public purposes. This is on the basis of extremely generous land provisions - often up to 40% of a total housing estate.

(ii) Borrowing Power Procedures:

The present procedures by which local authorities apply to borrow from the GLF in the Ministry of Local Government, Rural and Urban Development and at the same time from NHF in the Ministry of Public Construction and National Housing are in need of review.

As the Ministry of Local Government, Rural and Urban Development is responsible for overseeing the overall financial viability of local authorities it approves borrowing powers applications in all sectoral development including high density housing. Furthermore the Minister does not delegate his powers of approval.

As already noted, in the case of high density housing applications, the MLGRUD and MPCNH do not liaise sufficiently prior to making their annual bids to MFEFD. This lack of adequate liason and eventual juggling of funds to marry the two vote allocations only occurs after the funds have been approved by MFEFD. Local authorities are then faced with the constant threat that they will have to send uncommitted funds back to Treasury at the end of the financial year.

Recommendations:

(i) Land Charges:

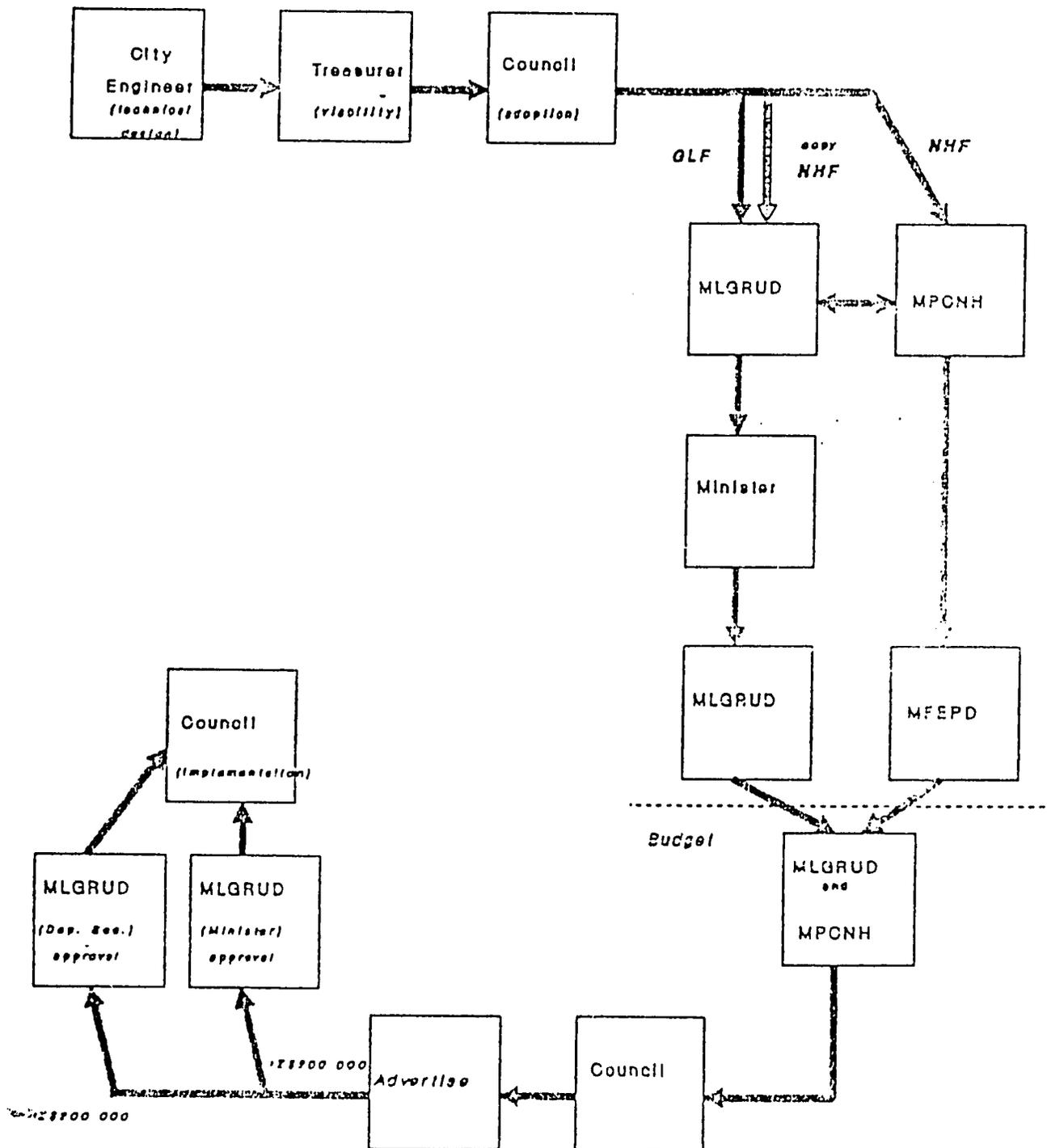
(a) Noting that municipalities are generally charging low and outdated prices for the intrinsic land value element of plot sales, it is recommended that further work be undertaken with these authorities to assess the possible impact on beneficiaries of increasing stand sales prices to not only represent current day market values but also building in a replacement (i.e. future cost) value.

(b) Noting that the prices charged by the RVO for plot sales are extremely low and out of date, and that increases in these prices are unlikely to negatively affect decentralisation to smaller centres, it is recommended that the state charge market values plus a future replacement cost value for land sales so as to generate necessary funds for future land acquisitions and to support the case for land banking.

(ii) Borrowing Power Procedures:

(a) Noting that there is very poor liason between the Ministries of LGRUD and PCNH in the annual bidding for funds from the MFEFD and in the subsequent allocation of funds from the GLF and the NHF, and that this results in delays in the approval of borrowing powers to the detriment of local authorities and beneficiaries, it is recommended that MLGRUD and MPCNH make greater efforts to liaise prior to and after bidding for funds on behalf of local authorities so as to provide more integrated and expeditious financing to local authorities.

FIG. 4 : RECOMMENDED PROCEDURES FOR BORROWING FROM THE GENERAL LOAN & NATIONAL HOUSING FUNDS



(b) Noting that the Minister of MLGRUD does not presently delegate his powers of approval of borrowing powers applications and that this causes some delays in the draw-down of funds from the National Housing Fund, it is recommended that powers of approval for all applications for borrowing powers for amounts equal to or less than Z\$200 000 be delegated to Deputy Secretary level in the MLGRUD.

(iii) Use of Private Sector Financing

(a) Noting the limits of public sector funds available for servicing new high density residential areas, it is recommended that the recent experiences of Harare and Redcliffe (which have borrowed funds from Building Societies to service raw land) be carefully monitored and evaluated with respect to the effects of higher interest rates being passed on to beneficiaries.

(b) Further noting that these increases are likely to be minimal in relation to the overall costs of a serviced core house, it is recommended that this information be passed on to the MLGRUD for its consideration when approving borrowing powers from Building Society sources with a view to permitting other local authorities to make use of Building Society funds.

(c) Noting that a limiting factor faced by local authorities in servicing land is lack of finance and noting the interest by Building Societies in possibly servicing raw land, it is recommended that further investigations be undertaken to ascertain the views of Ministries, local authorities, Building Societies and other developers on this matter and to investigate present legal restrictions (particularly in the Building Societies Act), limiting the role of Building Societies as developers of raw land.

3.3. "Low Cost Housing Infrastructure Options" by Mr. Garaba of Geoconsult

The rapid urbanisation which is characteristic of Zimbabwe's urban centres has direct implications on the growth of urban poverty. This is not only in the sense that more dwellings, land and services are needed but also, more critically, that these need to be provided to an ever expanding population with less capacity to pay for these items. This is the immediate problem which faces Zimbabwe. It is made worse by current practices and procedures of urban development which are wasteful of both land and services.

Low and affordable housing infrastructure depends on:

- (a) Government Housing Policy
- (b) Urban Planning Philosophy
- (c) The Legal Framework
- (d) Materials and Labour
- (e) Quality of Engineering Infrastructure.

The housing policies of Government are well known and it is not necessary to repeat them. However, the following affect the cost of infrastructure services:

- . minimum plot size of 300m²
minimum frontage was fixed at 12,5m.
- . the four room core house (50m²) was declared the minimum
- . All housing estates in urban areas are to be serviced with running water, sewerage, reticulation, electricity, access roads and stormwater drainage.

Infrastructure costs are related to planning aspects such as

- . the plot size
- . the layout of the plot.

The 200m² plot represents the smallest economical size that can be used while allowing some cultivation and other aspects of traditional lifestyles to take place.

Increasing the plot depth will bring about savings because of narrow plot frontages and consequently smaller service costs per unit. Where party walls are used, narrow plot frontages means the perimeter wall is shared.

Rigid adherence to planning standards which were formulated for colonial conditions will not help reduce infrastructure costs. Repeal the law that makes squatting illegal. Institute a system of upgrading squatter camps.

About 90% of the materials required for infrastructure and house construction are locally produced. Infrastructure services are affected by variation in relation to availability, location, cost of materials, labour costs, productivity, overheads, size of projects, number of contractors bidding for the work and profit levels.

According to a study by the Ministry of Public Construction,

and National Housing, construction costs have increased significantly since 1980:

4 roomed core (50m²) rose from \$3 800 (1984) to \$16 000 (1990).

To afford this an income of more than \$700/month is required.

70% of low income people cannot afford the 4 roomed core house. But infrastructure costs are about \$3 990,00 for a 50m² 4 room core on 300m² plot (Dec. 1989):

Survey	\$ 90,00
Roads and Stormwater	\$1 400,00
Water and Sewerage	\$1 200,00
Electricity	<u>\$1 300,00</u>
	\$3 990,00

INFRASTRUCTURE OPTIONS

A number of options were then presented (no order of priority).

Roads and Stormwater Drainage

Option 1 - Maintain existing standards of service:
\$1 400/stand

Efficient layouts should be utilised. The cul-de-sac layout reduces both the length of run of roads and other essential services.

In order to minimise road costs, 5% of the total road provision should be for district distributors, 25% for local distributors and 70% for plot access streets.

The present pavement standards, road reserves and construction standards of district and local distributor roads are considered adequate and they should not be revised. In any case major roads to low income housing estates should be of good quality and properly maintained.

The use of bolsters in the road drain to reduce velocities and erosion, the use of splash drains/drifts and a smaller minimum culvert size should reduce stormwater drainage costs significantly.

The drainage zones should be split into small economical areas to minimise culvert and drain sizes and to discharge the stormwater into the main drainage outfalls as soon as possible.

The residential area should be designed using wide vee drains to allow vehicles to drive through the drain itself for access to the plot.

Option II - Gravel roads to Plot access and Collector streets (\$715/stand)

The recommended construction criteria for plot access and collector streets is to have compacted subgrade plus 75mm thick dumped and spread gravel.

The present stormwater drainage systems should remain the same.

Option III - Unimproved access paths only (eg. Katutura, Namibia) (\$40/stand)

The widths of these paths should be the same as those presently used for plot access and collector streets.

The stormwater drainage becomes complicated. As there are no side drains the stormwater drainage should be in the form of drainage ditches along contours.

Water Reticulation

Option 2 - Existing standards of service (\$550/stand - materials only)

The use of UPVC pipes in favour of AC pipes reduces pipe material costs by about 50%.

Reduction in plot sizes will result in overall reduction in excavation costs and lengths of pipelines for each house. For example, the following plot sizes can be considered (with width and length in brackets)

200m ²	(10m x 20)
250m ²	(10m x 25)

All the above plot types have a plot frontage of 10m which implies a reduction of 2,5m from the present 12,5m. Using a 10m frontage has excavation cost savings of \$21,00 and material cost savings of \$11,50 per stand.

Supervised stand owner participation in digging, and backfilling of trenches of distribution pipes results in a saving of water supply infrastructure costs of \$84,01. The cost of material transport is not included.

Minimize road crossings to reduce use of galvanised iron piping or concrete surround. Concrete surround under an 8m road is about 2m³ which means an extra amount of \$320,00.

The currently used trench width of $D + 500\text{mm}$, where D is the diameter of the pipe should be reduced to $D + 450\text{mm}$. However if excavation is carried out by mechanical excavators, the change is unlikely to reduce costs of construction.

Construction of high rise blocks of flats will definitely reduce water supply infrastructure costs. Although residual heads are high and will require pipes of higher strength class which are expensive, the overall effect is reduction in costs.

Option II - Communal standpipes (\$270/stand)

Water reticulation infrastructure costs can be reduced by 65% if standpipes are used.

The maximum walking distance should be less than 100m with pressure heads of 5m at the standpipe.

Automatic self-closing taps should be used so that almost every person uses approximately the same amount of water. A flat rate is charged without regard to the amount of water actually used by the consumer.

Sewage Reticulation

Option 1 - Existing Standards of service (\$450/stand)

The use of UPVC pipes in favour of AC pipes reduces pipe material costs by about half as for water reticulation.

Reduction in plot sizes will result in overall reduction costs and lengths of sewer lines for each stand. For example, the following, the following plot sizes can be considered (with width and length in brackets).

200m ²	(10m x 20m)
250m ²	(10m x 25m)

All the above plot types have a plot frontage of 10m which implies a reduction of 2,5m from the present 12,5m. Using a 10m frontage has excavation cost savings of \$21,00 and material cost savings of \$18,30.

Supervised stand owner participation in digging, and backfilling trenches and laying of distribution pipes results in a saving of sewage reticulation costs of \$91,50 plus cost of transporting materials.

Minimize road crossings to reduce extra costs in concrete surround.

Construction of high rise blocks of flats will definitely reduce sewage reticulation cost per stand.

The minimum recommended gradient for a 150mm diameter sewer is 1: 150. This can be increased to 1: 180 or even 1: 200 with adequate flows.

The escalating costs of housing development make it logical for housing authorities to consider alternative sanitation options.

Option II

The lowest level of service which can be recommended is the use of:

- Blair toilets (VIP)
- Septic tanks (individual)
- Septic tanks (communal).

In all cases layout should allow for future upgrading on an incremental basis and when financial resources can be secured.

The stark choice for many poor people at the moment is either having some kind of roof over their heads or none at all in the hope that at some future date an affordable unit which meets the acceptable standards will be provided.

Blair toilets are, however, unsuitable for high density areas (with stand sizes less than 300m² or densities greater than 200 persons/ha). Furthermore they require that separate arrangements for sullage disposal be made.

Electrical Reticulation

Option I - Existing standards of service (\$1 300/stand)

6mm² cables can be used from the pole to the house instead of 16mm² being used. Since the distance from the pole to the distribution box is short, use of 6mm² instead of 16mm² cable would not produce significant extra power losses.

It is recommended that a 15A load limiter instead of a meter be employed. A meter costs about \$90,00 and a load limiter costs about \$30,00.

Overhead supply from the pole to the house is still recommended. Material costs for underground supply are approximately 50% higher than for overhead.

The poles should be made of concrete. Wooden poles are cheaper, but because of high maintenance costs, concrete poles work out cheaper in the long run.

Use of copper wire (locally produced) instead of aluminium wire.

Option II - Tower lighting only

The next lower standard is to provide tower or security lighting only. Household energy sources would be paraffin or woodfuel and candles for lighting.

COSTS/300M2 STAND

	Present	Option I	Option II	Option III
Roads & Stormwater	1 400	1 100	715	40
Water Retic.	550	270	190	(190)
Sewerage	650	315	225	(225)
Elec.	1 300	1 171	650	(650)
Survey	90	90	90	90
	3 990	2 946	1 870	1 195

3.4. "Preparation and Approval of Planning Layouts and Cadastral Survey" by Ms. C. Butcher of Plan Inc. Zimbabwe

Preparation and Approval of Planning Layouts

- The Department of Physical Planning (MLGRUD) prepares layouts for 7 Municipalities and 48 smaller local authorities. The procedures involved are:

The Provincial Planning Officer prepares the layout (six weeks plus); the local authority adopts the plan (1 month); the Director of Physical Planning approves the layout (Section 44) on technical grounds (1 month).

Cities prepare their layouts in halves. The procedures followed are:

Preparation of layout (6 weeks); local authority adopt the plan (1 month); Ministry of Local Government, Rural and Urban Development approval on technical and financial criteria (Section 160) (time varies but can be 4 months plus); if there is no existing town planning scheme the plan goes on public exhibition before adoption (21 days).

Local Authorities have tended to criticize the Department of Physical Planning for delays in approval. However the Department defends itself with the following figures:

4 000 stands per year approved in terms of Section 160.

1984: 16 layouts approved (Section 44)
 1987: 12 layouts approved (Section 44)
 1988: 32 layouts approved (Section 44)
 1989: 15 layouts approved (Section 44).

Nonetheless local authorities have called for delegated approval powers to provincial level. Such powers were delegated in the early 1980s but were subsequently withdrawn back to Head Office level because of the political pressures placed on Provincial Planning Offices to approve unsound planning layouts for political expediency. It is therefore unlikely that the Department will consider such delegation of powers again.

Delays with respect to layout plans appear to be not so much in the approval stage as in the preparation stage.

1. There is a shortage of experienced town planning officers in the Department of Physical Planning. Furthermore rural planning issues tend to get priority over urban planning layouts because on the one hand rural priorities dominate the national scene and on the other hand because rural planning issues tend to be less complicated than those found in urban areas. All of this lead to the delays in the preparation of plans.

2. There is a lack of adequate consultation between local authorities and the Department of Physical Planning and frequently insufficient detail is initially forwarded by the local authority.

DRAFT RECOMMENDATIONS

1. Noting that the Department of Physical Planning does not have sufficient internal resources; that planners

professional fees are low; that costs of fees can be subsidised by stand sale prices of commercial/ industrial/ medium density residential uses; and that the inflation rate in the construction sector is presently 2,5% per month, it is recommended that local authorities make greater use of private sector planners to prepare layouts on their behalf.

2. Noting that plan approval periods are sometimes delayed due to lack of adequate consultation between the local authority and the Department of Physical Planning and by lack of detail being forwarded by the local authority it is recommended that the following procedures be adopted to facilitate greater liaison during plan preparation:

In the case of layouts prepared by the Provincial Planning Officers for Section 44 approval:

- a) Provincial Planning Officer prepares draft layout plan;
- b) Provincial Planning Officer submits draft plan to Head Office for preliminary comments;
- c) Provincial Planning Officer incorporates Head Office's comments and submits plan to local authority for comments or adoption;
- d) Provincial Planning Officer submits plan noting local authority's adoption to Head Office for approval.

In the case of layouts prepared by the local authority for Section 140 approval:

- a) local authority prepares draft layout plan;
- b) submits draft to Provincial Planning Office for technical comments;
- c) incorporates Provincial Planning Officer's comments and draws up covering implementation proposals;
- d) draft plan and report submitted to Council for approval;
- e) plan, report and Provincial Planning Officer's comments submitted to Ministry of Local Government, Rural and Urban Development and copied to Director of Physical Planning for approval.

CADASTRAL SURVEY

The present cadastre system in Zimbabwe:

1. information lodged at the Registerer of Deeds (unique name and locality of property; extent of property; name of owner/s; conditions of title);
2. survey diagram lodged at Surveyor General's office.

Although this system is comprehensive and has thus been criticized as time consuming, Zimbabwe has a history of never having had an unresolved land dispute.

Main Issues

1. There is an acute shortage of land surveyors in the country - there are only 17 country wide of whom 11 are based in Harare. The University of Zimbabwe now runs a local course in Survey Training and 4 graduates completed the course at the end of 1989 and have now completed the articles; there were 12 graduates in 1990.

Thus there has been almost a 100% increase in the number of surveyors over the last 2 years. However due to the low fees charged by surveyors (fixed in terms of a statutory instrument) many of the recent graduates have looked to outside the country for employment opportunities.

2. A number of alternatives to the present cadastre system have been explored. For example the air-marking of stand boundaries which would facilitate the use of aerial photographs as records; the use of satellite imagery; the survey of block boundaries only.

However given the small stand sizes (and the call to further reduce stand frontages) it has been found that none of these methods results in effective cost or time saving. It should be noted that once commissioned a surveyor can survey 100 stands every 2 weeks. Therefore theoretically the 33 surveyors should be able to survey 165 000 stands per year.

Cause of Delays

1. Delays are frequently caused prior to a surveyor being commissioned. In the case of state land, the Department of Physical Planning sends approved layouts to the USLO which (as a non-technical office) in turn instructs the Surveyor General to survey. Due to shortages of staff, the SG commissions a private surveyor. If this private surveyor has queries on the layout, he must go back along this chain of offices to the original planner in order to have his query answered. This process prior to the actual survey being undertaken can take anywhere from 4 weeks to 2 years.

2. Delays caused by anomalies in approved plans.

Due to the shortage of experienced planners, lack of travel votes for field inspections and planning surveys, lack of adequate base mapping, and poor awareness amongst planners of the need for accuracy (especially in urban settings), a number of unnecessary delays are caused once a survey of an approved plan has been commissioned because there are anomalies between the plan and the actual condition of existing development on the ground.

3. Delays in approval of General Plans by the Surveyor General's Office.

At present, due to the shortage of skilled staff, the approval of plans submitted by private land surveyors to the Surveyor General's office takes approximately 10 months for processing. However a solution is in hand and the Surveyor General has instructed private land surveyors to check their work according to an initial check list before passing on the plans to his office for approval. Once the present backlog is overcome it is expected that future approvals will take only 2 months.

DRAFT RECOMMENDATIONS

1. Noting that Zimbabwe has a history of never having had an unresolved land dispute, that less rigorous cadastre methods of establishing stand boundaries are not possible given the small stand frontage dimensions and the need for accuracy when laying out services, and that the University of Zimbabwe is now training an increasing number of land surveyors every year, it is recommended that the present delays caused by the need for cadastral survey be weathered.

2. Noting that much time is lost between the time from which a plan is approved by DPP to when a surveyor is commissioned, it is recommended that DPP submit copies of approved plans simultaneously to USLO and to the SG's Office. Thus the SG may immediately begin preparing the brief to commission a private surveyor and send the brief on as soon as USLO confirms that it has sufficient funds to pay for survey.

3. Noting that plan anomalies cause considerable delays, it is recommended that the SG's Office copy its brief to the Surveyor to the relevant Provincial Planning Office (which prepares the plan) and that surveyors liaise directly with PPOs when querying layout details. The onus is then on the PPO to appraise its Head Office and USLO of any amendments made.

4. Noting that plan anomalies cause considerable delays and that these are often rooted in inadequate base mapping, it is recommended that DPP attempt to fill its existing vacant post of Chief Technician (Survey) with an experienced, registered land surveyor who would be responsible for closely supervising the Department's survey team and for improving the base mapping provided to the Town Planners. It is recommended that efforts be made to find funds to top up the post's salary to a competitive scale.

"Land Pricing Mechanisms and Cost Recovery Issues" by Ms. D. Butcher of Plan Inc. Zimbabwe

The Ministry of Local Government, Rural and Urban Development's policy for all urban local authorities in the country is that:

(1) Capital costs of the house (superstructure, roads and storm water drainage, intrinsic land value and survey fees, water and sewerage connection fees and capitalised interest) are recouped direct from households through the purchase agreement.

(2) Capital costs of water and sewerage within the estate are recouped from uniform tariffs charged across all high density suburbs. In many cases this tariff is being applied more and more uniformly across the city as a whole in line with the so called "one city" concept. For example Harare does this 100%, Mutare only 20%.

(3) Operation and maintenance and administration costs are recouped from monthly supplementary charges or rates.

MAIN ISSUES:

1. Unlike increases in rates in low density/high income areas which are the responsibility of the local authority, increases in tariffs and supplementary charges in the high density/low income areas must be approved by the Minister of Local Government, Rural and Urban Development. This situation exists because prior to independence the high density areas were administered by appointed public administrators with no economic background. The housing areas had no political representation on the local councils. In some cases at the end of the financial year if there were deficits, the administrators would unilaterally increase supplementary charges or beer prices (the latter are paid into the housing accounts).

To counteract the obvious social and political displeasure of residents with these increases, it became legislated that the Minister must approve increases in tariffs and supplementary charges in the high density areas. After independence the Minister took a firm view that proper

financial statements be kept for the high density housing areas and he now personally approves any tariffs increases.

As a result there are frequently delays in approving tariff increases which exacerbates the viability problems of councils seeking borrowing power approvals. Today, sometime after independence, the high density areas are well represented on the local authorities and the Minister's role as public guardian seems to have fallen away.

2. One city concept versus direct and full cost recovery from beneficiaries.

One accounting system argues that all capital costs of infrastructure should be recouped directly from beneficiaries through the sale prices of stands. This system is relatively simple to administer, it provides a direct record of development costs, and the beneficiary is able to pay in accordance with the size of his/her stand.

The alternative option is for water and sewerage capital costs to be offset over the city tariffs as a whole and amortised over a longer time period. The rationale for this is that interests of infrastructure loans become payable after 6 months of the draw down of funds. Therefore a beneficiary would have to start paying monthly charges whether or not he or she had yet built a house and moved onto the stand and were using water and sewerage.

DRAFT RECOMMENDATIONS

1. Noting that urban local authorities are empowered to approve rate increases in low density suburbs by themselves but that they must gain ministerial approval for increasing tariffs which in turn causes delays in approval of borrowing powers and is not in keeping with the one city policy, it is recommended that the need for Ministerial approval for increases in tariffs and supplementary charges in high density areas be abolished.

2. Noting that all local authorities are moving toward a one city concept for political reasons and as a means of maintaining revenues, it is recommended that the current system of recouping water and sewerage capital costs across the city as a whole be maintained and be extended to include servicing of new land by private developers.

(Note: Some confusion exists as to the definition of on-site and off-site infrastructure costs. The Ministry of Local Government, Rural and Urban Development and the Ministry of Public Construction and National Housing are not in agreement on this point. This issue need to be resolved before a final recommendation can be made.)

4. ISSUES CONSTRAINING THE EFFECTIVE DELIVERY OF LAND AND AFFORDABLE INFRASTRUCTURE FOR LOW COST HOUSING

GROUP REPORTS:

The following is a summary of the key constraints identified by the working group sessions. Where two or more groups discussed the same issue, the constraints presented have been consolidated.

Report 1: Land Acquisition Delivery Procedures and Land Banking -

1. The present procedures on land acquisition are too bureaucratic and are excessively centralised. For example with respect to consultation procedures and with respect to central government (MFEED is removed from land pressures felt at local levels).
2. Lack of personnel, funds, material and equipment for identifying land needs and carrying out the necessary technical procedures to effect acquisition. For example the lack of valuers; the lack of topographical maps at suitable scales.
3. Outlay of capital and accumulation of interest without direct and immediate returns places a burden on local authorities who wish to acquire land in advance of development (opportunity costs).
4. The raw land market within and adjacent to local authority areas are subject to speculative markets and this leads to high land costs. Non-virgin land in and around cities and towns tends to be highly developed and hence attracts high prices.
5. The basis on which some valuations are carried out are unrealistic, leading to reluctance of owners to sell their land.
6. The non-availability of suitable land for housing development in and around cities and towns. This obviously varies from town to town but most towns have areas of vleis or areas which are difficult to sewer and drain.
7. The outdated land use zoning restrictions found in many towns inhibits the use of otherwise suitable land for housing.

Report 2: Land Funding

1. (a) Delays and lack of liason in approval of borrowing powers.
- (b) Lack of carry over provision of public funds from one fiscal year to another.
2. (a) Legislative restrictions on Building Societies participation.
- (b) The present repayment to income factor set by government (27%) is too restrictive.
3. Low income stand prices are adversely affected by the excessive land requirements of public facilities.
4. Unrealistically low plot prices charged adversely affects the roll-over capacity of revolving funds.
5. Government (USLO) and some local authority stand sale agreements inhibit home owners from obtaining mortgage loan by requiring that transfer is deferred until the stand has been paid for and development commenced.

Report 3: Infrastructure Options (Roads and Stormwater Drainage, Water Reticulation, Sanitation, Electrical Options)

1. The non-availability and high cost of materials: imported electrical components and equipment, cement, etc.
2. Minimum health criteria, high aspirations and political influence limit the scope for reducing standards.
3. Nonetheless there is a restricted range of service level options which has been explored to-date.
4. A shortage of technical manpower particularly for design and implementation stages.
5. The high capital costs of infrastructure (particularly of roads where standards are frequently too high) linked to low affordability of beneficiary households restricts access to shelter.
6. There is an unclear design population criteria used from area to area (particularly with respect to the official and de-facto occupancy rates of housing).
7. Lack of topographical survey maps at a suitable scale.

Report 4: Planning and Housing Policy and Legal Constraints

Planning and Housing Policy:

1. The 300m² minimum plot size is too expensive and wasteful of land.
2. The land use planning standards are wasteful and inflexible.
3. The housing policy as a whole including other design standards (for example roads, 50m² core house and type of house etc. is inflexible).
4. There is too infrequent a review of housing policy.
5. Conflicting and overlapping roles of ministries particularly Ministry of Public Construction and National Housing/Ministry of Local Government, Rural and Urban Development. This in turn leads to a lack of integrated planning and implementation teams in housing projects.
6. The needs of the lowest and middle income groups are not addressed in current housing policy and these households lack any choice over the shelter supplied.
7. Cumbersome procedures and lack of manpower create delays in survey and planning.
8. The current practices of dual ownership leads to the letting of substandard rental accommodation.
9. The current high rate of urbanisation/inmigration makes it difficult for local authorities to provide sufficient housing for immigrants resulting in squatting.
10. The perennial conflict between politicians and professionals in the decision making process.

Legal Matters:

1. The inflexible interpretation of building regulations by certain local authorities. In some instances by-laws are extremely outdated.
2. The procedures of approving plans i.e. Master Plans and Local Plans and the difficulty in changing the provisions of existing plans e.g. with respect to road widths and densities.
3. A lack of clarity in the law regarding the status of informal housing.

4. The restrictive professional codes of various institutes.
5. The high minimum building clause.

Materials for Servicing and Shelter:

1. Shortages and soaring prices particularly of those materials with a high foreign currency component.
2. A reluctance to accept indigenous materials of an acceptable standard (eg. farm bricks) and the lack of priority given to research into alternative technology.
3. The materials performance standards set (particularly by local authorities and building societies) are too high for low cost housing.
4. Inadequate local capacity in the production of building materials.

Report 5: Survey and Planning Requirements

1. Delays in approvals by the Ministry of Local Government, Rural and Urban Development.
2. Inadequate consultation between Department of Physical Planning and Local Authorities.
3. Lack of adequate base mapping of up to-date aerial photographs.
4. Shortage of chartered land surveyors and experienced town planners.
5. Frequent misplacing of plans at Ministry of Local Government, Rural and Urban Development.
6. Absence of statutory planning documents (eg. Master Plans) in most local authorities.
7. Operative Town Planning Schemes frequently too rigid.
8. Lengthy planning procedures resulting in system being unresponsive to immediate development needs and changes.
9. Delays in the application for title transfer approvals.
10. Lack of equipment, transport and foreign exchange allocations to the Surveyor General's office.

5. RECOMMENDATIONS

Summary of Group Recommendations as adopted by the Plenary.

5.1. GENERAL

IT IS RECOMMENDED THAT:

- 1.1. Improve co-ordination between Ministry of Local Government, Rural and Urban Development and Ministry of Public Construction and National Housing by them making joint housing and related PSIP submissions to Ministry of Finance, Economic Planning and Development (See 3.15 for permanent solution).
- 1.2. In view of the shortage of skilled manpower, the Ministry of Higher Education to ensure an increased intake of students for engineering, architecture and land and quantity surveying at the Universities and colleges.
- 1.3. That PSD and LAs introduce technicians and journeyman grades below surveyors, engineers, and planners with limited responsibilities where they do not exist in adequate numbers. Efforts to be made that these technicians be given an opportunity to upgrade.
- 1.4. The Government should consider recognition of Eastern Block qualifications by local professional institutions.
- 1.5. Remove sales tax from building materials.
- 1.6. MPCNH and Technical Centre of Ministry of Industry and Technology in collaboration with NGOs and other interested parties should intensify research into alternative technologies.
- 1.7. Local Authority building inspectors be trained to use building regulations with a view to enabling rather than prohibiting development.
- 1.8. More forex should be provided for procurement of equipment etc. for building materials.
- 1.9. Need for regular liaison between LAs' and DPP.
- 1.10. That the Ministry of Lands allocates adequate funds for necessary equipment and retention of staff. Including private survey equipment (PERKS) requirements - Forex.

- 1.11. Local Authorities speed up preparation of master plans and local plans especially Local Subject and Priority Plans in the case of smaller centres, guidelines or for land use and growth directions.
- 1.12.
 - a. strengthen training programme for land surveyors,
 - b. ease restrictions on expatriate surveyors,
 - c. use labour-saving technologies,
 - d. explore possibility of using certificate of occupation for collateral purposes.
- 1.13. Commission a study of certificates of occupation used in countries in the Region in lieu of Title Deeds.

5.2. STANDARDS

- 2.1. Greater attention to sound planning principles be taken into account in the selection of locations for new settlements/towns/growth points.
- 2.2. Simplify procedures with respect to:
 - a) Land zoning revisions,
 - b) Planning approvals,
 in consultation with MOE, MOH and L.As.
- 2.3. The Ministry of Public Construction and National Housing to work with the four cities to analyse current infrastructure designs, with a view to identifying possible savings with current standards and with alternative service levels and building materials (indigenous where possible) e.g.

Roads

1. Minimum culvert diameter - 450 mm,
2. Wide V-drains to avoid culvert crossings and beneficiaries to pay for accesses if they require them,
3. District and Local roads to be surfaced. Access roads to plots to be shaped in situ materials in suitable material (gravel).

Water

1. The cheapest available material (pipes) should be used.
2. Self help digging and backfilling for upgrading projects only.
3. Avoid concrete surrounds by providing good bedding and adequate cover at road crossings.

Sewerage

1. As for water,
 2. As for water,
 3. As for water.
 4. Laying of pipes to be done by qualified drain layers at recommended gradients.
 5. Standpipes and blair toilets be accepted on 300m² minimum size with a properly planned layout for future upgrading in outlying areas of the towns/Peri-urban areas or small centres.
- 2.5. Adopt realistic design population criteria which, assuming multiple occupancy, are based on existing conditions (lodging) (Local Authority/CSD).
- 2.4. Depending on location, plot sizes should be flexible and should range from 150m² to 300m². This amendment to be effected by the MPCNH for all future schemes.
- 2.7. As far as possible, maximum frontage should be 10m, side building lines of more than 0 m to be retained.
- 2.8. MOE, ME, DPP, LA to revise current standards as to the provision of public facilities (i.e. roads, schools, hospitals) with a view to reducing them.
- 2.9. MLGRUD in consultation with LAs, Engineers and Architects should speed up examination of Model Building By-laws taking into account local conditions.

5.3. POLICY

- 3.1. LAs to create a multi-disciplinary unit specifically tasked with responsibility of identifying land needs and making first discreet approaches in a business like manner to owners of suitable land for housing development. Thereafter the unit would report to council with tentative agreement of sale.
- 3.2. Acquired land should be put to productive and remunerative use before/until housing development takes place.

- 3.3. Impose punitive land tax on undeveloped/underdeveloped urban land in private ownership.
- 3.4. With a critical shortage of valuers MPCNH should hire private valuers to augment their valuation personnel.
- 3.5. In budgetary terms housing should be accorded a higher national priority.
- 3.6. Simplify the following procedures:
 - a. borrowing powers (MLGRUD),
 - b. survey and title (Surveyor General).
- 3.7. Amend Building Society Act to enable the societies to purchase Peri-urban land and become direct developers of virgin land for the benefit of applicants on LAs' housing waiting list.
- 3.8. Repayment to income factor used by government for guarantee purposes to be revised up to 40% of households income. Informal income should be taken into account.
- 3.9. Local Authorities through the Local Authorities Associations explore possibility of rating/taxing and cost of servicing land use for public facilities. Local Authorities should make provision for lowest income groups not catered for in conventional housing schemes, eg.
 - a) by setting aside land with basic services and standards for incremental improvement/upgrading;
 - or
 - b) Local Authorities introduce ultra-low cost subsidised housing for rental.
- 3.10. Bearing in mind the small element in serviced stand prices arising from the Intrinsic Land Value and the need to establish viable revolving fund, land prices be increased to more realistic replacement levels (LAs).
- 3.11. Agreements of land sales be amended to permit transfer prior development on the strength of a guarantee mortgage loan (USLO and LAs).
- 3.12. Present conventional home ownership schemes' policy be amended to permit one room and wet block to be completed in 24 months with provision to expand (MPCNH).

- 3.13. Implementation of housing policy be continuously monitored and reviewed every two years (MLGRUD, MPONH and LAs).
- 3.14. All housing and land issues should fall under a single Ministry (until this has been achieved, i.e. to be followed).
- 3.15. Mixed densities be adopted in all future housing schemes (MLGRUD, DPP, LAs).
- 3.16. Where substandard Settlements exist in areas zoned residential, a programme of upgrading be undertaken by LAs and residents.
- 3.17. DPP/MLGRUD should delegate approval of layouts of 500 stands or less to PPOs.
- 3.18. The need for Ministerial approval for increases in tariffs and supplementary charges be abolished (MLGRUD).
- 3.19. A common policy on setting stand prices be adopted for all on-site infrastructure (including water and sewer reticulation) and intrinsic land value (MPONH and MLGRUD).
- 3.20. Off-site infrastructure should be charged to rates and tariffs in respect of Local Authority and Private Developments.
- 3.21. Approval of amendments to Town Planning Schemes/Local Plans be decentralised to Provincial Level (by the Provincial Planning Officer).

6. CONCLUDING REMARKS

6.1 Statement by Mr. V. Wabiroos, UN Centre for Human Settlements (Habitat), Nairobi Regional Office Representative

Mr Wabiroos noted that the Workshop had been specifically organised to consider the provision of shelter for lower income families.

One of the most vexing issues which had faced participants throughout their deliberations had been whether one should assist as many households as possible or only those who could afford a certain standard. The present standards being used in the country were beneficial for those who could afford them. However for the 70% of households that could not afford them, these standards were an inadequate solution.

He further went on to note that in some countries the authorities only provided raw, unserviced land for in-migrants to the cities. Individual households then had to use their own resources for services and construction of their houses. The benefit of this policy was that rates (albeit low) were paid for this land to the local authorities.

Government and local authorities should be enablers of development and be careful that they were not in fact preventing development.

Finally Mr Wabiroos called on the Workshop organisers to ensure that the recommendations adopted be circulated to as many individual agencies as possible.

6.2 Statement by Mr P. Martin, Technical Advisor to the Regional Housing and Urban Development Office (East and Southern Africa), United States Agency for International Development

Mr Martin noted that the Workshop had brought to bear fruitful discussion on a number of important issues. Even if the recommendations were not adopted as a whole as national policy they would nonetheless have made a lasting contribution to housing policy in the country.

6.3 Statement by Mr I. M. Magagula, Director of Housing and Community Services, City of Bulawayo and Chairman of the Final Davis Proceedings

Mr Magagula noted that the participants had worked hard over the past three days. He called upon the Workshop organisers

and in particular the Ministry of Public Construction and National Housing to ensure that the Workshop proceedings and recommendations were distributed right around the country to all local authorities, professional institutes and other interested parties.

6.4 Closing Statement by Mr E.C. Chikwore, Minister of Public Construction and National Housing

In a closing statement read on his behalf, the Hon. Minister noted that the Government of Zimbabwe is committed to providing adequate and affordable shelter. The availability of virgin land was hindering the supply of housing and therefore he would consider seriously the recommendation that local authorities should procure land well in advance of future use and put it to productive use until it was needed for housing.

He noted too that the Ministry of Finance, Economic Planning and Development was already looking into ways of facilitating the involvement of Building Societies in the servicing of land. He called upon local authorities to work with Building Societies once this approval was given.

The Minister advised the Workshop that some limited research was currently being undertaken into alternative technologies for building and infrastructure materials; for example the use of stabilised soil blocks and 'terrablocks'. People's attitudes had to be changed with respect to accepting such materials in order to ease the present shortages of building materials.

Finally the Minister thanked the participants for their inputs at the Workshop. He stated that his Ministry would indeed take further the recommendations which had been made.

6.5 Vote of Thanks by Mr A. Musekiwa, Director of Housing and Community Services

Mr Musekiwa thanked the organisers and sponsors of the Workshop as well as the Club Mazvikadei venue hosts. He noted that participants had been involved in very active and busy sessions and that in a small way this was their way of thanking the "no income" homeless families in the country.