

PD-446-104

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633-8001

PROJECT EVALUATION SUMMARY (PES) - PART I

Report Symbol U-447

1. PROJECT TITLE  BOTSWANA HOUSING GUAPANTY			2. PROJECT NUMBER 633-HG-001	3. RHUDO/AID/W OFFICE East & Southern Africa
			4. EVALUATION NUMBER (Enter the number maintained by the reporting unit e.g., Country or AID/W Administrative Code, Fiscal Year, Serial No. beginning with No. 1 each FY) No. 1	
5. KEY PROJECT IMPLEMENTATION DATES			6. ESTIMATED PROJECT FUNDING	
A. IA Signed FY 1978	B. Final Disbursement Expected FY 1980	C. Final Input Delivery FY 1980	A. Total \$ 2,400,000 B. HG \$ 2,400,000 C. DL \$ _____ D. DG \$ _____ E. OPG \$ _____ F. IIPUP \$ _____	
			7. PERIOD COVERED BY EVALUATION	
			From (month/yr.) June 1978 To (month/yr.) April 1979 Date of Evaluation Review March - April 1979	

8. ACTION DECISIONS APPROVED BY MISSION OR AID/W OFFICE DIRECTOR

A. List decisions and/or unresolved issues; cite those items needing further study. (NOTE: Mission decisions which anticipate AID/W or regional office action should specify type of document e.g., airgram, SPAR, PIO, which will present detailed request.)	B. NAME OF OFFICER RESPONSIBLE FOR ACTION	C. DATE ACTION TO BE COMPLETED
1. Amend Implementation Agreement by letter to: a) increase construction advance from \$500,00 to \$850,000, b) provide that any loan funds not needed for infrastructure go to building material loans - first for Broadhurst II and second for Broadhurst III, c) explicitly permit construction of model houses and low-cost sanitation facilities in Broadhurst II using building material funds.	RHUDO/E&SA Nairobi	May 1979
2. Continue to persistently encourage the Water Utilities Corporation and its contractors to expedite the work (they are on critical path).	Urban Co-ordinator Gaborone Lobatse	continuing
3. Accord high priority to funding, design, construction and operation of schools, clinics and commercial centers in		

9. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS	10. ALTERNATIVE DECISIONS ON FUTURE OF PROJECT
<input type="checkbox"/> Project Paper <input checked="" type="checkbox"/> Project Delivery Plan <input checked="" type="checkbox"/> Project Planning Tracking Network PPTN <input type="checkbox"/> Logical Framework	A. <input type="checkbox"/> Continue Project Without Change B. <input type="checkbox"/> Change Project Design and/or Change Implementation Plan C. <input type="checkbox"/> Discontinue Project
<input type="checkbox"/> PIO/T <input type="checkbox"/> PIO/C <input type="checkbox"/> PIO/P	
<input type="checkbox"/> Other (Specify) _____	
<input type="checkbox"/> Other (Specify) _____	

11. PROJECT OFFICER AND HOST COUNTRY OR OTHER RANKING PARTICIPANTS AS APPROPRIATE (Names and titles)	12. RHUDO/AID/W OFFICE: _____
Jim Stanford, USAID/Botswana	Director Approval
Don Gardner, RHUDO/Nairobi	Signature <i>Donald A. Gardner</i>
Gordon Trigg, Min. of Local Government and Lands	Typed Name Donald A. Gardner
James Upchurch, Gaborone Town Council (SHHA)	Date July 27, 1979

## PROJECT EVALUATION SUMMARY (PES) - PART I

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1. PROJECT TITLE BOTSWANA HOUSING GUARANTEE			2. PROJECT NUMBER 633-HG-001		3. RHUDO/AID/W OFFICE East & Southern Africa	
			4. EVALUATION NUMBER (Enter the number maintained by the reporting unit e.g., Country or AID/W Administrative Code, Fiscal Year, Serial No. beginning with Ka. 1 each FY) No. _____			
			<input checked="" type="checkbox"/> REGULAR EVALUATION		<input type="checkbox"/> SPECIAL EVALUATION	
5. KEY PROJECT IMPLEMENTATION DATES			6. ESTIMATED PROJECT FUNDING		7. PERIOD COVERED BY EVALUATION	
A. IA Signed FY 1978			A. Total \$ 2,400,000		From (month/yr.) June 1976	
B. Final Disbursement Expected FY 1980			B. HG \$ 2,400,000		To (month/yr.) April 1979	
C. Final Input Delivery FY 1980			C. DL \$ _____		Date of Evaluation Review	
			D. DG \$ _____		March - April 1979	
			E. OPG \$ _____			
			F. IIPUP \$ _____			
8. ACTION DECISIONS APPROVED BY MISSION OR AID/W OFFICE DIRECTOR						
A. List decisions and/or unresolved issues; cite those items needing further study. (NOTE: Mission decisions which anticipate AID/W or regional office action should specify type of document, e.g., program, SPAR, PIO, which will present detailed request.)			B. NAME OF OFFICER RESPONSIBLE FOR ACTION		C. DATE ACTION TO BE COMPLETED	
Broadhurst II (still probably will be two months later than desirable)			Gaborone Town Council		various - 1979-80	
4. Provide adequate GOB and GTC local personnel to work with and be trained by USAID and other technical assistance advisors and contract expatriates (should be condition of further USAID technical assistance to this sector)			ULGS		continuing	
5. Upgrade Town Treasurer's staff and accounting procedures to improve collection of service charges.			GTC and ULGS		continuing	
6. Increase monthly service charges to level needed to recover full costs (thereby eliminating GOB and GTC housing subsidies).			MLGL and MFDP		annually	
9. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS				10. ALTERNATIVE DECISIONS ON FUTURE OF PROJECT		
<input type="checkbox"/> Project Paper				A. <input checked="" type="checkbox"/> Continue Project Without Change		
<input checked="" type="checkbox"/> Project Delivery Plan				B. <input type="checkbox"/> Change Project Design and/or		
<input checked="" type="checkbox"/> Project Planning Tracking Network PPTN				<input type="checkbox"/> Change Implementation Plan		
<input type="checkbox"/> Logical Framework				C. <input type="checkbox"/> Discontinue Project		
<input type="checkbox"/> PIO/T						
<input type="checkbox"/> PIO/C						
<input type="checkbox"/> PIO/P						
<input type="checkbox"/> Other (Specify) _____						
<input type="checkbox"/> Other (Specify) _____						
11. PROJECT OFFICER AND HOST COUNTRY OR OTHER RANKING PARTICIPANTS AS APPROPRIATE (Names and Titles)				12. RHUDO/AID/W Office Director Approval		
Jim Stanford, USAID/Botswana				Signature <i>Donald A. Gardner</i>		
Don Gardner, RHUDO/Nairobi				Typed Name Donald A. Gardner		
Gordon Trigg, Min. of Local Government and Lands				Date July 17, 1979		
James Upchurch, Gaborone Town Council (SKHA)						

13. SUMMARY

The \$2.4 million Housing Guaranty loan to the GOB is to finance parts of the Broadhurst II sites and services project in Gaborone and provide \$200,000 in capital equipment for the Gaborone Self Help Housing Agency (SHHA). Included are \$1.3 million for roads, drainage and low-cost sanitation for 1,300 self-help plots and \$900,000 for 1,850 building material loans -- all for lower-income households.

Although the Implementation Agreement for this loan was signed only last October, physical development of Broadhurst II started one year ago. The project is two to four months behind schedule because of (1) delays in contracting (especially the water contracts because EDF (the European Development Fund of the European Economic Community) was reluctant to permit South African procurement and (2) contractor delays in completing both roads and water systems. As a consequence, expenditures have been slower than planned; thus, the GOB will fall short by \$300,000 of the loan draw of \$790,000 scheduled for May 31, 1979 (the first draw of \$700,000 was in October 1978) without a change in the Implementation Agreement to increase the construction advance allowable from \$500,000 to at least \$800,000.

All development contracts for Broadhurst II development are executed and work is well along except for the water pumping plant, which now is estimated to be completed by December 1979 or January 1980. Therefore, further slippage in the schedule, if any, will be determined by the contractors on-site. No major delays are expected. Moreover, the actual costs for infrastructure are within the budget and should continue

to be, despite high inflation rates, schedule delays, and the need to remedy a fault in the design of the low-cost sanitation units after the units were installed (length of soakaways needs to be extended because of compact soil conditions).

The SHHA is ready and able to process plot allocations and building material loans. However, the GOB has modified the Certificate of Rights document (the plot "title" in lower-income housing areas) to facilitate legal action against plotheolders in default, which probably will require changes in the Building Materials Loan Agreement. Since this issue has not been resolved yet, the SHHA may be delayed in allocating plots and making building material loans.

Increased cost of building materials has resulted in the materials for a small two-room house plus toilet structure costing more than the P600 (\$720) loan limit set by the GOB. This should be increased to P800 (\$960). Should the HG loan allocation of \$900,000 not be adequate (the FCH Advisor thinks it will be), the surplus available from the infrastructure allocation (perhaps \$200,000) should be used for this purpose.

The SHHA has built model houses and toilets with building material loan funds; eventually the houses will be sold to recapture these monies. These structures are of considerable value in demonstrating what can be built with the material loans and in experimenting with new materials and construction techniques. The SHHA would like to continue this program and it makes sense. However, it would be desirable to have the Implementation Agreement explicitly authorize such expenditures.

Schools, health clinics and commercial centers are not yet underway. Their design and financing are just now being initiated. While the GOB indicates that they will be completed as needed, at this time they appear to be late in getting started. It seems likely that they will be a few months late in opening if present schedules for infrastructure and construction are met.

This project benefits substantially by excellent management by the Urban Coordinator and SHHA FCH Advisor. However, the GOB and GTC have been slow and unpredictable in providing either trained Batswana or Batswana who could be trained on the job, thus raising concerns about the ability to implement future self-help housing programs without substantial expatriate involvement.

Despite its policy of no housing subsidy, the GOB provides P90 (\$108) per allocated plot to the Town Council and the Council provides further subsidy because the monthly service charge of P4.50 (\$5.40) is much less than the cost of serving each plot.

In sum, even with these shortcomings, this project is well on the way to meeting its original purposes and furthering the sector goal: affordable housing for lower-income households in Botswana.

14. EVALUATION METHODOLOGY

This is a regular evaluation of the Housing Guaranty Program in Botswana, HG-001. While the Implementation Agreement was signed October 1978, the Broadhurst II sites and service project in Gaborone has been under construction for approximately one year. Thus, the basic purpose of this evaluation is to measure progress of this project involving four donors as well as the GOB. Further, project monitoring indicates that delays in providing infrastructure -- especially roads and water systems -- could cause delays in the allocation of plots. Through this evaluation, it was expected that the reasons for these delays would be identified and ways of avoiding future delays considered.

The AID Office of Housing requested that DeVoy Collaborative of Washington, D. C. undertake this evaluation under its Indefinite Quantity Contract No. AID/otr-G-1634 during the period March 15 to June 30, 1979. Concurrently, and as part of the same Work Order, DeVoy Collaborative was requested to conduct a regular annual evaluation of OPG Project G-1582, which has been providing technical assistance to Gaborone Town Council's Self Help Housing Agency (SHEHA) since December, 1977. In addition, the Contractor's Terms of Reference include updating the Botswana Shelter Sector Analysis report, dated January 1976, prepared under the auspices of the AID Office of Housing.

Robert D. DeVoy of DeVoy Collaborative has made this evaluation under the direction of Donald Gardner and Pamela Bussey, RHUDO/Nairobi, the Gaborone AID Mission and Jack Hjelt, DS/H.

The evaluation consultant participated in orientation sessions and reviewed project files in Washington and Nairobi and then spent the period March 21 through April 25 in Botswana. He worked closely with the AID Mission, Government of Botswana officials in the Ministry of Finance and Development Planning (MFDP) and the Ministry of Local Government and Lands (MLGL) and the Gaborone Town Council (GTC).

Key individuals participating in this evaluation included, in addition to the persons mentioned above, James Upchurch, FCH Advisor to the OPG contract, and Gordon Trigg, MLGL Urban Development Coordinator for Gaborone and Lobatse.

For comparative analysis purposes, the consultant reviewed low-cost housing programs in Lobatse with Mr. Trigg and In Francistown and Selebi-Pikwe with James Donald, the MLGL Urban Coordinator for those towns.

The Scope of Work for this evaluation provides that:

"The contractor in the evaluation will pay particular attention to:

- i. plot allocation in accordance with documentation,
- ii. causes of major delays in HG implementation,
- iii. major constraints or obstacles within the GOB and Gaborone Town Council and Office of Housing,
- iv. availability of shopping/market areas within project areas B, C, and D,
- v. role of the donors,
- vi. and other matters as identified by the RHUDO."

## 15. EXTERNAL FACTORS

The assumption stated in the Project Paper (1976) Logical Framework under Sector Goal was: "Continuation of commitment by GOB to solving sector problems and emphasizing needs of lower income households." This continues to be the dominant theme of GOB housing goals, policies and programs. However, in the broader context of GOB priorities, economic development -- especially rural development and employment creation programs -- as well as defense preparation far outweigh other programs. Should budget cuts be necessary, the budget of the Ministry of Local Government and Lands (MLGL) probably would be substantially reduced, according to a preliminary paper setting guidelines for the preparation of National Development Plan V. Nevertheless, by complying with its policy of not subsidizing housing, such reductions need not have a major detrimental impact on the provision of low-cost housing. Another important consideration is the staff capacity of the MLGL to plan and survey housing projects -- budget cutbacks could reduce this capacity.

A key assumption in GOB planning for the next five-year period is that town councils will bear more of the burden of providing housing, urban infrastructure and social services; however, because of the continuing lack of trained Botswana and insufficient local revenue systems, it would seem that town councils are likely to continue to be inadequately managed, staffed and financed. Another key assumption expressed in the Logical Framework for this project is: "Continued commitment by GOB to strengthening local institutions." This commitment has been seriously frustrated by slowness in staffing

the Self Help Housing Agency (particularly with trained senior staff) and the detrimental practice of the Unified Local Government Services (ULGS), which provides personnel for all local governments, to reassign personnel away from the Gaborone SHHA frequently and abruptly.

Lack of trained manpower is a crucial constraint to Botswana development overall, but certainly including housing. Consequently, heavy reliance is placed on expatriates (usually on two-year contracts) without Botswana counterparts or assistants being trained to take over. Thus, the local institutions are highly vulnerable to changes in expatriate personnel. For example, the Urban Coordinator, Gordon Trigg, does not have a Botswana assistant (although the Urban Coordinator for Francistown and Selebi-Pikwe does). Should Mr. Trigg not stay beyond his present contract which ends October 30, 1979, Broadhurst II would be affected and, certainly, new projects in Gaborone and Lobatse would suffer severely.

The biggest factor in delaying the implementation of Broadhurst II was the reluctance by one of the participating donors, the European Development Fund, to authorize tenders from South African companies for the water supply contracts. Eventually EDF waived these early restrictions, but at a time cost of several months to the overall project and higher monetary costs because of inflation. While this issue is now past (the last contract was just signed), its consequences continue to delay project implementation.



ALLOCATION OF HG LOAN

	<u>Project Paper (June '76)</u>	<u>Imple- mentation- Agreement (Oct. '78)</u>	<u>Urban Coordinator's Estimate (April '79)</u>	<u>Actual Expendi- ture to March 1, 1979</u>	<u>Actual Expenditure as Percent of Implemen- tation Agree- ment Amount</u>
			(000)		
Roads and Drainage	\$ 950	\$ 700	\$ 520 <sup>1/</sup>	\$200	29%
Low Cost Sanitation	500	600	510	180	30
Building Mater- ial Loans	900	900	900	6 <sup>5/</sup>	1
Management Assistance	100 <sup>2/</sup>		NA	NA	NA
SHHA Adminis- tration	150 <sup>3/</sup>		NA	NA	NA
SHHA Capital Expenditure <sup>4/</sup>		200	200	175	88
<b>Total</b>	<u>\$2,600</u>	<u>\$2,400</u>	<u>\$2,130</u>	<u>\$561</u>	<u>23%</u>

<sup>1/</sup> Contract awarded was much less costly than preliminary estimates.

<sup>2/</sup> Assumed HG loan would fund Urban Coordinator, was then funded by UK Grant.

<sup>3/</sup> Became funded by OPG.

<sup>4/</sup> Covers capital expenditures for expansion of SHHA starting October 1977 per Implementation Agreement.

<sup>5/</sup> \$60,000 actually allocated, but only \$6,000 has been processed by GTC.

nearly \$300,000. The GOB has requested that AID agree to amend the Implementation Agreement to increase the maximum construction advance. This problem is attributable to delays of several months in the progress of the roads, drainage and sewerage contractor and some slowness by the Town Treasurer in processing payments.

Project construction actually started about six months before the Implementation Agreement was signed. There was a basic understanding that the project would proceed as early as mid-1977 and a Memorandum of Agreement was signed early in 1978 which stated that project costs incurred before the Implementation Agreement would be eligible for HG loan financing as long as they were otherwise eligible. While in retrospect, the drawdown periods seem unnecessarily demanding, without the delays in providing infrastructure it seems that those provisions could have been met without any problems.

In March 1978 the GOB and GTC entered into an agreement whereby the GOB would loan the GTC slightly over \$1.0 million to "bridge" the US/AID HG loan. Mostly, the GOB pays the contractors directly, with the cost charged against the loan. GTC is handling the sanitation contracts with the funds borrowed from the GOB. This loan enabled the GTC to commence implementation of the project in a timely manner with adequate funds.

The only significant money input problem to the Broadhurst II Project has been the considerable delay by the EDF in approving the tendering of South African contractors and equipment as described under "External Factors," above. Otherwise, money has been adequate in amount and timely in its availability -- and probably will continue to be so.

The supplies, equipment and building materials purchased with these monies are of satisfactory quality and have been delivered on reasonable schedules, in requested quantities, and at fair market prices. As long as Botswana and South Africa remain on friendly terms, no major problems are likely.

Staff inputs have been mixed. The Urban Coordinator and FCH Advisor to the SHHA were placed in the field in a timely manner (November and December, 1977, respectively, with 24-month and 30-month contracts). Moreover, each of them is well suited to his responsibilities, is strongly committed to the successful implementation of this project and low-cost housing in general, and they work together very effectively. On the other hand the GOB (through its Unified Local Government Services) has been unable or unwilling to supply Botswana as needed, in the numbers needed with the appropriate skills.

It may well be that this project can be successfully completed without much improvement in the Botswana staffing situation (but it must not get worse) since nearly all major decisions have been made and procedures well established for carrying out the remaining activities. However, one of the principal functions of the Urban Coordinator and FCH Advisor is to train local staff. Without GOB assignment of such staff, this input cannot be provided satisfactorily. While the GOB staff shortages are understandable, more priority must be given to staffing housing and urban development positions or the institutional continuity and self-sustaining capacity of future projects will suffer greatly.

The GOB limits building material loans to P600 (\$720) per plotholder, however because of substantial increases in material costs (mostly imported from South Africa), a basic house of 20 - 22 M<sup>2</sup> (2 rooms) plus toilet building now costs more than P600. The FCH Advisor is proposing that the limit be raised to P800 (\$960). In any event, loan applicants can only borrow the amount they can afford to repay and 60 - 65 per cent have borrowed the maximum amount to date. Even with this increase, the FCH Advisor projects that the \$900,000 allocated for this purpose from the HG loan should be adequate. The \$900,000 allows for two-thirds of the plotholders to borrow the maximum amount or all the plotholders to borrow an average of P400 (\$480). Should the \$900,000 not be adequate, there is a projected surplus of \$200,000 (roughly) in infrastructure allocations which could be used for this purpose.

17. OUTPUTS

Broadhurst II is on the northside of the new (started 1963) town of Gaborone, capital of Botswana. Broadhurst I (financed by the GOB) commenced construction in 1974, major infrastructure was essentially completed in 1976 and the area is nearly completely occupied with about 1500 housing units. The original GOB plan was for Broadhurst II to be developed beginning in 1976 with approximately 2,500 plots. The description of the Broadhurst II project in the Project Paper (June 1976) agrees with the Republic of Botswana Project Memorandum (November 1977) and, in fact, the planned outputs are being delivered faithfully according to those documents and the Implementation Agreement.

About one-half of the HG loan (\$1.3 million) is being used to fund the construction of primary and secondary roads, drainage and low-cost sanitation for approximately 1,300 self-help plots in areas B, C and D (i.e., \$1,000 per plot). As indicated under Inputs, above, other donors and the GOB are funding the remainder of Broadhurst II construction.

In August 1978 -- after the project was in implementation for several months, but before the Implementation Agreement was signed in October -- the GOB Urban Coordinator projected the schedule for all the major components of the Broadhurst II project. In April 1979 he prepared a new schedule at the request of DeVoy Collaborative. A comparison of these schedules, reordered by DeVoy Collaborative to highlight the completion of serviced plots, plot allocations and building material loans, is shown in the Annex. Note that the completion of roads and drainage in each area will be five to six months behind the schedule projected in August 1978 and a month or two behind completion of the water distribution systems in areas B, C and D.

Thus, while there were problems in getting construction of the water system underway (because of the EDF reluctance to approve South African tendering), the completion of plots is being delayed by both road and water construction contractors. The GOB and GTC decided to risk difficulties by accepting a very low bid from Sladden International for the roads, drainage and sewers. Despite the persistent and appropriate prodding by the Urban Coordinatiro and others, Sladden fell behind schedule by two to three months at the outset and has not regained the lost time. The conviction is that the firm now is doing the best it can and nothing further can be done to expedite the new completion schedule.

While the water distribution pipes will be laid sooner than roads will be completed, the water pressure may be inadequate because the pumping plant cannot be completed until December 1979 or January 1980. The contract was not let until April, 1979 -- the delay was largely attributable to the EDF slowness in authorizing South African tendering. There are three contracts on the water system, all let as of now so further delays should not occur for this reason.

The unavailability of serviced plots has caused a delay in plot allocations and building material loans in Area B from starting in March to May and perhaps even July, or two to four months slippage. A two-month delay may not be too serious since the SHHA has reserved 100 plots, about 50 plots remaining, in Area A for the relocation of Old Naledi households, but a longer delay could adversely affect the ability of the SHHA staff to handle the compressed workload, thus resulting in further delays in allocating plots, making building material loans and providing construction technical assistance to plot holders.

Another complicating factor -- and one which may cause delays in allocating plots and making building material loans -- is the change made to the Certificate of Rights (which is the agreement between the government and the household describing the rights and obligations of the sites and services plot holder). Because of poor experience in collecting monthly rates in other projects (for roads, sanitation, trash collection), the GOB has decided to change the provision regarding legal actions to collect payment from defaulters in order to facilitate action and, hopefully reduce the high default rate (over 50 percent in some projects in Botswana). However, the new certificates are not yet available and the GOB is not working on related changes which may be needed in the Building Materials Loan Agreement. Should these new forms not be available by the time Area B plots are serviced, SHHA activities would be frustrated and probably delayed. The GOB has been urged by the Urban Coordinator and the SHHA Advisor to accord priority to producing the revised forms, but action is uncertain at this time. The Urban Development coordinator has just prepared a revised BML Agreement in hopes of expediting action by the MLGL and GOB lawyers.

One change in output decided upon is in low-cost sanitation for the self-help plots. After the installation of Type B toilets for most plots, it was decided that underground "soakaways" needed to be extended or the sewage would not percolate into the ground as intended. This additional work is to be completed by the sanitation contractor on a negotiated cost basis -- the total cost still will be within the budget and plot delivery should not be delayed for this reason. However, the SHHA advisor feels that this type of sanitation is too expensive for many of the lower-

income households in Gaborone (nearly \$400 per household). The households pay for this cost in their total monthly rates charge of \$5.40 per month.

The Broadhurst II development plan provides for a major commercial center in Area C and local centers in A (2), B and D. Also, primary schools are planned for Areas A, B, and D. These sites are being serviced with roads, drainage, sewers, water and electricity as part of the work of servicing the residential areas. Design work has been completed for the stalls in the Area A local commercial centers, but attention to schools, health clinics, post office, police station, major commercial center, and other facilities and services is just beginning. While GOB and GTC officials have indicated to the consultant that these facilities will be available when needed, more priority should be given to development of a plan to fund these facilities. Only now has the GOB begun to seek grants for the schools, for example.

A total of \$1.1 million of the HG loan proceeds is allocated to the Gaborone SHHA: \$200,000 for capital equipment and \$900,000 for building material loans in Broadhurst II. Major outputs of these investments include essential trucks, tractors and trailers which have greatly improved the SHHA's capability to transport building materials and create roads in Old Naledi and Broadhurst, thus saving significant amounts of time and money. Also, the money has been used to purchase programmable calculators which are used in the ward offices to help in the allocation of plots, maintenance of building materials inventory, and recording of building material loans.

Only \$60,000 of the \$900,000 for building material loans has been allocated to plot holders because of the delays in providing infrastructure to plots, thus houses will be constructed later than previously scheduled.

No changes in project outputs are needed.

18. PURPOSE

The Project Paper expresses two project purposes for Broadhurst II:

- "a. To strengthen the Gaborone Town Council (GTC) and its Self-Help Housing Agency (SHHA) to enable them to manage lower-income shelter programs, making them productive elements in the housing delivery system.
- "b. To provide infrastructure services to Broadhurst Stage two in order to relieve the present shortage of serviced land in Gaborone, including areas of site and service lots designated for self-help housing.

Under the HG loan, monies to the GTC and its SHHA were limited to infrastructure in Broadhurst II, equipment for the SHHA, and building material loans -- the OPG financed SHHA technical assistance and the UK financed the Urban Coordinator, whereas both were included in the Project Paper for funding by the HG loan. Nevertheless, as indicated under Outputs, the monies used to expand the SHHA capabilities have served their purpose effectively and efficiently. The materials loan program has been well-organized and equipped and its purpose should be realized. Descriptions of the SHHA plot allocation and building material loan programs are included in the Annex. In terms of the passage of time, the implementation is at the half-way point. Infrastructure seems to be approximately one-half complete overall (excluding building material loans), although actual expenditures account for only one-third the budget for roads, drainage, sewers and low-cost sanitation.

This is the largest sites and services project in Gaborone. There has been a strong demand for the plots from households well below the estimated median income level (i.e., annual household income of P 1,500 or \$1,800). A SHHA analysis of plot applicants is included in the Annex.

The only shortfalls in the attainment of project purposes are two: (1) timing of the project, which is two to four months behind schedule, but this will not affect the full attainment of the purpose, just its timing; and (2) the lack of Botswana staff critical senior housing-related positions in the GOB and GTC, thus limiting the attainment of the purpose of strengthening these institutions on a lasting basis.

**19. GOAL/SUBGOAL**

The sector goal of Broadhurst II, as expressed in the Logical Framework in the Project Paper, is: "To improve shelter in urban areas for lower income households. This project, from its inception in the early 1970s, has been considered a major component of the housing efforts of the GOB and GTC as well as several donors in addition to US/AID. The GOB decided in the early 1970s that it wanted to upgrade existing squatter areas and provide alternatives to further growth of squatter areas. The sites and services, self-housing components of Broadhurst II contribute substantially to these policies. Further, the expenditure for Gaborone SHHA vehicles and equipment has greatly aided in improving the capability of the SHHA, not only in Broadhurst II but in Old Naledi upgrading and other lower-income projects in Gaborone as well.

The sector goal "to improve shelter in urban areas for lower income households" has several facets or sub-goals, including at least the following (derived by DeVoy Collaborative):

- a. To provide sufficient designated areas where lower-income households can settle
- b. To allocate plots in those designated areas to lower-income households on a fair, equitable basis
- c. To foster homeownership by providing secure, long-term title to each plotholder
- d. To create roads, drainage, water supply, and basic sanitation socially acceptable to lower-income households at costs they can afford (without government subsidy)

- e. To provide street lighting, schools, health clinics, commercial centers, police protection, public transportation, and other public services at reasonable standards
- f. To assist the ploholders build houses which meet their basic needs and preferences and prices -- including building material loans and technical assistance with design and construction
- g. To extend social services to the households so that they are better able to adjust to urban living and home ownership
- h. To upgrade existing squatter areas by organizing plots, providing user titles, building roads, improving water supply and sanitation, and extending other public facilities and services.

The HG loan is being used to provide about 1,300 serviced plots to lower-income households, thus helping to attain subgoals a. and d. (roads drainage, and basic sanitation). Moreover without AID requirements and assistance in the allocation of plots to households below the median income, it may well be that a large share of these plots would go to households with incomes above the median. There is a strong demand for housing at all cost levels in Gaborone. The "low-cost" housing being built by the Botswana Housing Corporation (BHC) costs approximately \$5,000 per unit and up, thus affordable by households with incomes of at least \$2,400 per year (based on \$50 per month payment and 25 percent of income going for housing). In practice, the base level income for a BHC house is more like \$3,000, while the median annual income in Gaborone probably is less than \$1,800 (based on 1978 sample survey by Central Statistics Office). Since no housing is being provided for these "upper-lower income" households, there have been strong political pressures to formally and informally raise

the income limit -- the SHHA has resisted these efforts and AID requirements and guidelines are being implemented.

The roads, drainage, water supply, and sanitation are being designed and constructed as inexpensively as possible. Street lighting is provided only along major roads. However, these facilities and recurring services are being subsidized by the GOB and GTC because the monthly service charge of P 4.50 (\$5.40) is at least P 3.00 (\$3.60) less than necessary for full cost recovery (including debt service, SHHA operations and monthly services). The GOB provides P 90 (\$108) for each plot and the GTC makes up the monthly deficit by using other revenues. The housing subsidy is further increased by the large number of households not paying the monthly service charges (now 30% in Gaborone, down from 50% one year ago).

Subgoals b., c., f., and h. (i.e., plot allocation certificates of rights, house construction assistance) are being achieved mostly through the efforts of the SHHA -- partly with funds from the HG loan, but also the OPG, GOB funds, and other donors.

The provision of community facilities (e.g., schools, clinics) and social services by the GOB and GTC are yet to be realized in Broadhurst II, but they are being provided in Old Naledi and are planned for Broadhurst as the population growth warrants.

At this time, there is every reason to believe that the sector goal (and its various facets) will be furthered substantially by the HG loan albeit the project is a few months behind schedule and there is less participation by Botswana than desirable.

20. BENEFICIARIES

Primary beneficiaries of this HG loan are the 1,300 lower income households who will be living in Broadhurst II sites and service areas B, C, D in houses they built with material loans funded by the HG loan and technical assistance from the SHHA (partly funded by the HG loan and the OPG). In addition, nearly 550 households will benefit by building material loans in Area A (thus a total of 1,850).

In broader terms, all households assisted by the SHHA are receiving more benefits because the SHHA's overall capabilities are increased by the vehicles and office equipment (along with the OPG assistance to the SHHA).<sup>1/</sup>

To the extent that these monies are effective in increasing the overall continuing capabilities of GOB and GTC to deliver housing and housing services, future beneficiaries will be many times the direct beneficiaries. The population of Gaborone is projected to grow by 38,000 to 59,000 persons (i.e., perhaps 8,000 to 12,000 households) between 1978 and 1986 (population was 44,500 in 1978). Most of these households will be migrating from rural areas in search of education and employment, thus most will be lower-income -- at least until they are trained and find suitable employment. These in-migrants tend to be young, they ususally come individually; their immediate families remain in the rural villages (temporarily, anyway).

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<sup>1/</sup> HG loan funds have been used to purchase trucks, tractors and trailers, which the SHHA uses to transport building materials; office equipment purchased includes programmable calculators for handling records regarding building materials and loans and files and sorters for facilitating plot allocations and building material loans. See Annex for descriptions.

Relatives tend to live together in an "extended family" manner. It is not uncommon for the "extended family" to have a house in town, in the "home" village and at its cattle post.

It is likely that a large share of future urban residents will need housing programs similar to this one funded by the HG loan. The implications for expanding GOB and GTC SHHA capabilities are apparent, but the prospects for meeting these needs are uncertain given the limits of GOB finances and, most importantly, trained Batswana.

The Broadhurst II project and the expanded Gaborone SHHA are both highly regarded in Botswana and are considered models of future housing efforts in Gaborone, the three other towns and some of the larger villages. Since the urban population of Botswana (i.e., Gaborone and three other towns), is projected to increase by at least 100,000 persons by 1986, i.e., 20,000 plus households, the spread effect of the HG investment could be of considerable magnitude. Again, this potential is dependent on the GOB providing an adequate number of reasonably trained and trainable people to gain experience and training from the expatriates now managing Botswana housing programs. Without this crucial immediate investment of personnel by the GOB, new urban migrants may find that squatter housing is all that is available to them.

## 21. UNPLANNED EFFECTS

One effect which was planned but nevertheless has been greater than expected is the positive value of both the MLGL urban coordinator (funded by the UK but originally included in the HG Project Paper) and the GTC SHHA advisor (funded by the US/AID OPG, but also originally in the HG Project Paper). The GOB now considers these roles to be indispensable in the implementation of lower-income housing programs. These roles are important, but in this case exceptionally competent individuals were selected -- not easy to duplicate time after time anywhere. This positive effect may have a negative side as well: some officials in the GOB seem to feel they need not commit scarce educated Botswana to housing and urban development, since it seems to them that suitable technicians can be readily provided by donors. In fact, Botswana senior staff are essential to the long-term housing and urban development programs of Botswana.

A related unplanned effect is that the Broadhurst II infrastructure costs may be less than budgeted, despite a high rate of inflation and some delays with construction contracts.

On the other hand, despite a substantial study of low-cost sanitation alternatives and the considered decision by the GOB to go with Type B toilets (requiring regular manual flushing with water and an underground soakaway pipe and porous soil), the Broadhurst II experience indicates this approach to low-cost sanitation is expensive for lower-income households (\$400 per toilet) and not suitable for the compacted soil commonly found in the Gaborone area. Thus, the low-cost sanitation issue remains unresolved in Botswana. The GOB is continuing to work on this as part of each housing project.

Finally, the SHHA in Gaborone has been demonstrating that by educating households as to their rights and responsibilities, as well as by instituting good financial management practices, it is possible to collect monthly rates from the households much more effectively than had been the case in Gaborone and continues to be the case in other towns. Monthly service charges and building material loan installments must be paid by the households if Botswana is to achieve its policy of no housing subsidy and thus be able to provide adequate housing for its rapidly growing urban poor. By greatly improving its service charge collection record, the Gaborone SHHA provides encouragement to pursue this critical policy and need.

22. LESSONS LEARNED

1. The GOB has a formal, explicit and systematic process for planning and implementing housing and urban development projects. This process includes: GOB policy formulation; comprehensive town planning; applied research on population growth and related housing implications; 5-6 year concept planning; project memoranda (including context, needs, objectives, outputs, costs and financing, timing, agencies responsible, and impacts); detailed design and engineering by consultants; inter-agency agreements; and implementation supervised by an Urban Development Coordinator, including effective use of a project coordination committee comprised of all participating agencies and contractors. This process has proven to be effective. It deserves to be continued in Botswana and replicated elsewhere.

2. The role of the Urban Development Coordinator, in particular, is key to effective project implementation (actually commencing with project planning). This position should be made an established permanent position of the GOB/MLGL and at least one Botswana citizen assigned as Urban Development Coordinator or Assistant in each town.

3. Early in the project, the Urban Development Coordinator complained of too much reporting required by US/AID. Now he feels that this reporting and monitoring have been valuable to his role as well as US/AID needs. He did successfully combine the Project Delivery Plan and Project Progress Status Report (See Annex for example.).

4. The Planned Performance Tracking Network in the Project Paper was only a bar chart, and that is what it remains today (in revised form, of course). Because of the role of the Urban Development Coordinator, his

exceptional capabilities and the regular use of the coordinating committee, the project has not suffered significantly from lack of a network showing more detailed events, activities and their interrelationships. This project is too far along to benefit by a full PPTN now, but the Urban Development Coordinator and this evaluator concur that future projects would benefit by this management tool.

5. The Broadhurst II Project was delayed more than one year because of complications in dealing with several donors on one project (two with little or no previous experience in housing and urban development). Such projects should be financed by one or at most two donors, with very clear agreements from the outset.

6. The GOB decided to accept a very low bid for the construction of roads, drainage and sewers, expecting to have performance problems as a consequence. There have been delays and some problems with coordination and quality of the work. Overall, however, the calculated decision seems to be working out satisfactorily. Had it not been for major delays in water supply contracting, however, the road and drainage work would be delaying project progress. The point is to understand the bids and their implications, and not to decide on the basis of price alone.

7. On designing any housing project, tradeoffs must be made between capital costs and recurring operating costs. Usually, higher quality construction standards result in lower maintenance costs and vice versa. However, according to the Urban Development Coordinator, Broadhurst II road and drainage standards entail moderately high capital costs and high maintenance costs. He feels that higher standards, at only slightly higher capital costs, could have resulted in substantially

better roads (paved rather than graveled, gravel than dirt) with lower maintenance costs (road surfaces do not freeze here). Specific analyses of such tradeoffs should be made at the project design stage of future projects.

8. Despite a study made by a Canadian research organization, the GOB has yet to find a satisfactory solution to low-cost sanitation, i.e., units which are socially acceptable, sanitary and affordable by the lower-income urban households. Thus, it continues necessary to undertake research and demonstration projects and to install the types of low-cost sanitation which best fit local conditions.

9. The Loan Agreement provides for three draws by the GOB during specific months, which were determined by the projections of expenditures made nearly one year ago. These periods were set too rigidly for the realities of this type of project; thus causing complications when the projections are not met. Broader timeframes for drawdowns are likely to minimize problems with the various project agreements when delays occur. The needs of the lender for predictable draws is understandable. Perhaps future loan agreements could include a provision whereby the borrower would notify the lender 60-90 days before each draw as to any required adjustments in the timing or amount of the draw. The lender could plan accordingly. Penalties might be imposed for major deviations from the original schedule, thus providing an incentive for the borrower to meet the schedule as much as possible.

23. SPECIAL COMMENTS OR REMARKS

The following documents are attached as an Annex to this Project

Evaluation Summary for Broadhurst II:

1. Map of Gaborone showing Broadhurst.
2. Map of Broadhurst.
3. Logical Framework (from 1976 Project Paper).
4. Planned Outputs (from 1977 GOB Project Memorandum).
5. Project Deliver Plan (March 1979).
6. Planned Performance Tracking Chart (April 1979).
7. Summary Description of Plot Allocation Criteria and Procedures.
8. Summary Description of Building Material Inventory  
And Loan Procedures.
9. A Statistical Report on Applications for Plots Taken  
Between 27/06/78 and 13/10/78.
10. Selected Characteristics of Old Naledi Population.
11. Botswana Housing Subsidy Analysis.

PROJECT DESIGN SUMMARY  
LOGICAL FRAMEWORK

Life of Project: 77 to FY 80  
From FY \_\_\_\_\_ to FY 80  
Total U. S. Funding \$2.6 million  
Date Prepared: \_\_\_\_\_

Project Title & Number: Botswana Housing Guaranty

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Program or Sector Goal: The broader objective to which this project contributes:</p> <p>To improve shelter in urban areas for lower income households</p>	<p>Measures of Goal Achievement:</p> <p>GOB allocation of resources for projects which support the sector goal.</p>	<p>Monitoring by AID/Gaborone, RHUDO/Nairobi and SER/H.</p>	<p>Assumptions for achieving goal targets:</p> <p>Continuation of commitment by GOB to solving sector problems and emphasizing needs of lower income households.</p>
<p>Project Purpose:</p> <p>(1) Strengthen local shelter mgt institutions. (2) Provide infrastructure for development of capital town, including site/service areas and home construction loans.</p>	<p>Conditions that will indicate purpose has been achieved: End of project status.</p> <p>(1) Local institutions functioning properly. (2) Area developed and houses being built.</p>	<p>Monitoring as above combined with regular evaluation and feedback.</p>	<p>Assumptions for achieving purposes:</p> <p>Continued commitment by GOB to strengthening local institutions. Demand by residents of capital for site/service housing schemes.</p>
<p>Outputs:</p> <p>(1) Strengthened, functioning SHHA. (2) All lots allocated and loans made. (3) All land serviced.</p>	<p>Magnitude of Outputs:</p> <p>(1) 25-30 additional SHHA staff plus office vehicles equipment. (2) Loans made of \$900,000 and \$500,000 for homes and latrines. (3) 300 ha. land serviced.</p>	<p>Monitoring and evaluation as above combined with regular written reports from GOB.</p>	<p>Assumptions for achieving outputs:</p> <p>Project can be implemented within estimated costs.</p>
<p>Inputs:</p> <p>IG loan, assistance for coordination of project and SHHA, and grants and loans from other financing agencies.</p>	<p>Implementation Target (Type and Quantity)</p> <p>(1) \$2,600 IG loan (2) \$3,280,000 GOB input. (3) \$2,045,000 EDF input. (4) \$650,000 CIDA input. (5) \$165,000 UK input.</p>	<p>Monitoring as above and close consultation with other agencies involved.</p>	<p>Assumptions for providing inputs:</p> <p>(1) IG investor available. (2) Tech. assistance personnel available. (3) Other inputs are made as indicated.</p>

PLANNED OUTPUTS OF BROADHURST II

<u>Area</u>	<u>Housing Units</u>					<u>Commercial Centers and Schools</u>		
	<u>High Cost</u>	<u>Medium Cost</u>	<u>Flats</u>	<u>Self-Help</u>	<u>Total</u>	<u>Primary School</u>	<u>Local Center</u>	<u>Commercial Center</u>
	(Number of housing units)					(hectares)		
A	0	0	0	561	561	3.95	4.07	0
B	34	80	54	579	747	4.33	1.90	0
C	31	61	56	409	557	0	0	10.80
D	30	51	34	299	414	3.40	2.40	0
TOTAL	95	192	144	1848	2279	11.68	8.37	10.80

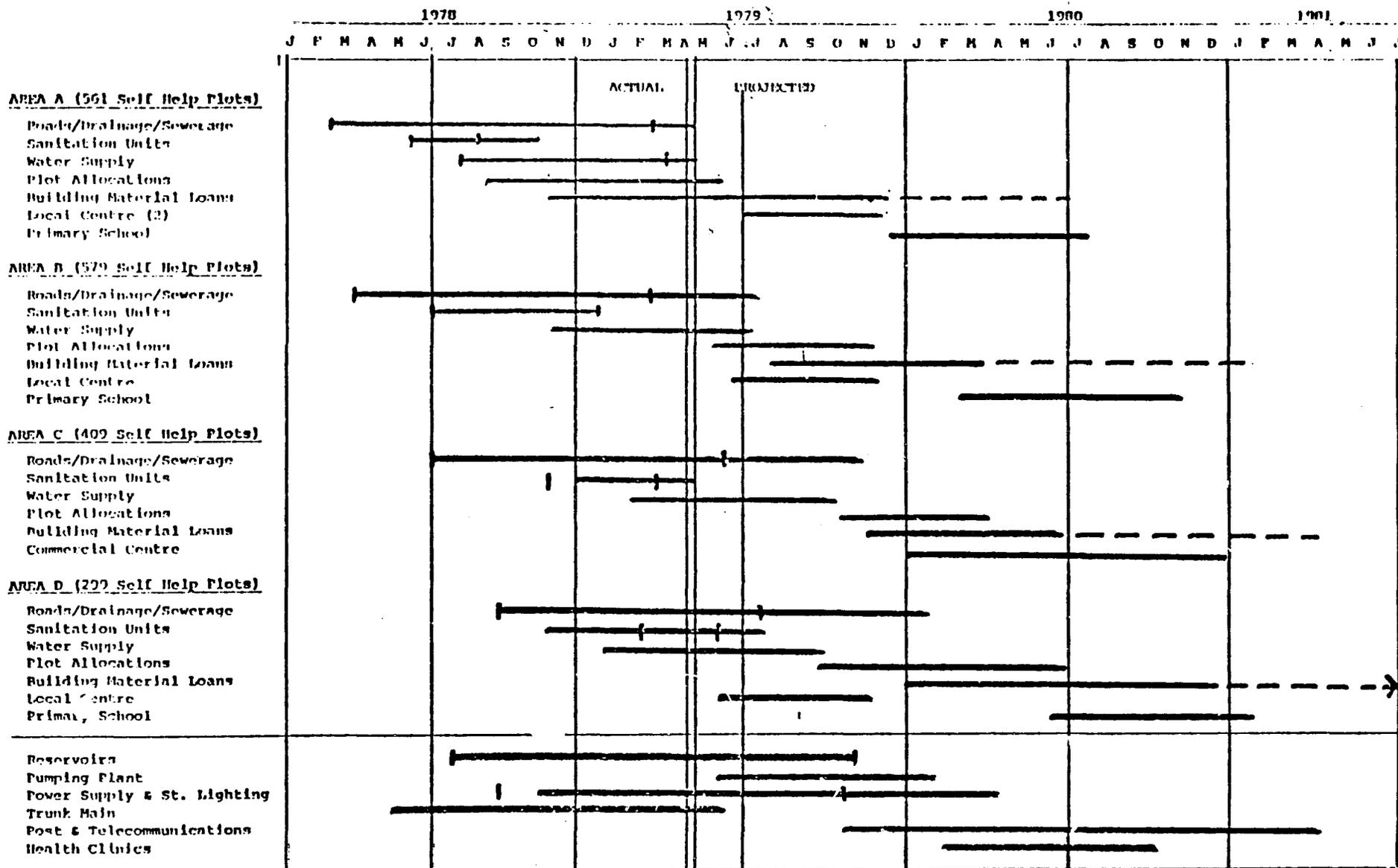
Source: Project Memorandum, Development of Broadhurst Stage II, MLGL,  
November 1977.

# JADHUR'ST STAGE 2 - PROJECT DELIVERY PLAN - USAID

MONTH	PROGRAMMES	START		COMP.		COSTS - PULA '000'S				ALLOCATIONS		FINANCE			
		PERIOD		PERIOD		CONSTRUCTION		OTHER		TOTAL		NO of UNITS		AID/HG	
		PERIOD	TOTAL	PERIOD	TOTAL	PERIOD	TOTAL	PERIOD	TOTAL	PERIOD	TOTAL	PERIOD	TOTAL	PERIOD	TOTAL
	CONSTRUCTION FINANCE														
	SIHA CAPITAL EXPEND.						94.4	94.4	94.4	94.4					
	ROADS AND DRAINAGE	600	600			74.3	74.3	5	5	79.3	79.3				
	SANITATION	300	300			8.0	8.0			8.0	8.0				
	BML'S														
SEP 78	CONSTRUCTION FINANCE												309.4	309.4	
	SIHA CAPITAL EXPEND.						43.1	137.5	43.1	137.5	(450)	(450)	94.4	94.4	
	ROADS AND DRAINAGE	400	1000	300	300	37.2	111.5	6.1	11.1	43.3	122.6	155	155	95.9	95.9
	SANITATION	270	570	400	400	123.2	132			123.2	132			nil	nil
	BML'S													nil	nil
DEC 78	CONSTRUCTION FINANCE														
	SIHA CAPITAL EXPEND.						7.8	145.3	7.8	145.3	80	235			
	ROADS AND DRAINAGE	150	1150	200	500	38.6	150.1	3.7	14.8	42.3	164.9				
	SANITATION	300	870	200	600	18.8	150.0			18.8	150.0				
	BML'S	57	57	10	10			4.2	4.2	4.2	4.2				
MAR 79	CONSTRUCTION FINANCE														
	SIHA CAPITAL EXPEND.						15	160.3	15	160.3	300	535	269	658.6	
	ROADS AND DRAINAGE	100	1250	200	700	40	190.1	7	21.8	47	211.9			60	154.4
	SANITATION	300	1170	350	950	100	250.8			100	250.8			95	190.9
	BML'S	200	257	40	50			50.1	55	50.1	55			30	30
JUN 79	CONSTRUCTION FINANCE														
	SIHA CAPITAL EXPEND.						5.7	166	5.7	166	300	835			
	ROADS AND DRAINAGE	80	1250	200	900	50	240.1	6	27.8	56	267.9				
	SANITATION	80	1250	300	1250	100	350.8			100	350.8				
	BML'S	300	557	150	200			60	115	60	115				
SEP 79	CONSTRUCTION FINANCE														
	SIHA CAPITAL EXPEND.									166	300	1135			
	ROADS AND DRAINAGE			200	1100	60	300.1	7	34.8	67	334.9				
	SANITATION					72	422.8			72	422.8				
	BML'S	300	857	200	400			70	185	70	185				
DEC 79	CONSTRUCTION FINANCE														
	SIHA CAPITAL EXPEND.									166	300	1435	159.2	417.6	
	ROADS AND DRAINAGE			150	1250	90.5	390.6	6.8	41.6	97.3	432.2			11.6	166
	SANITATION										422.8			200	390.9
	BML'S	300	1157	200	600			70	255	70	255			222.8	422.8
														160	190
MAR 80	CONSTRUCTION FINANCE														
	SIHA CAPITAL EXPEND.									166	415	1850			
	ROADS AND DRAINAGE									432.2					
	SANITATION									422.8					
	BML'S	300	1457	300	900			70	325	70	325				

Urban Development Coordinator (Cityzone) 1st March, 1979.

BROADHURST II PLANNED PERFORMANCE TRACKING CHART

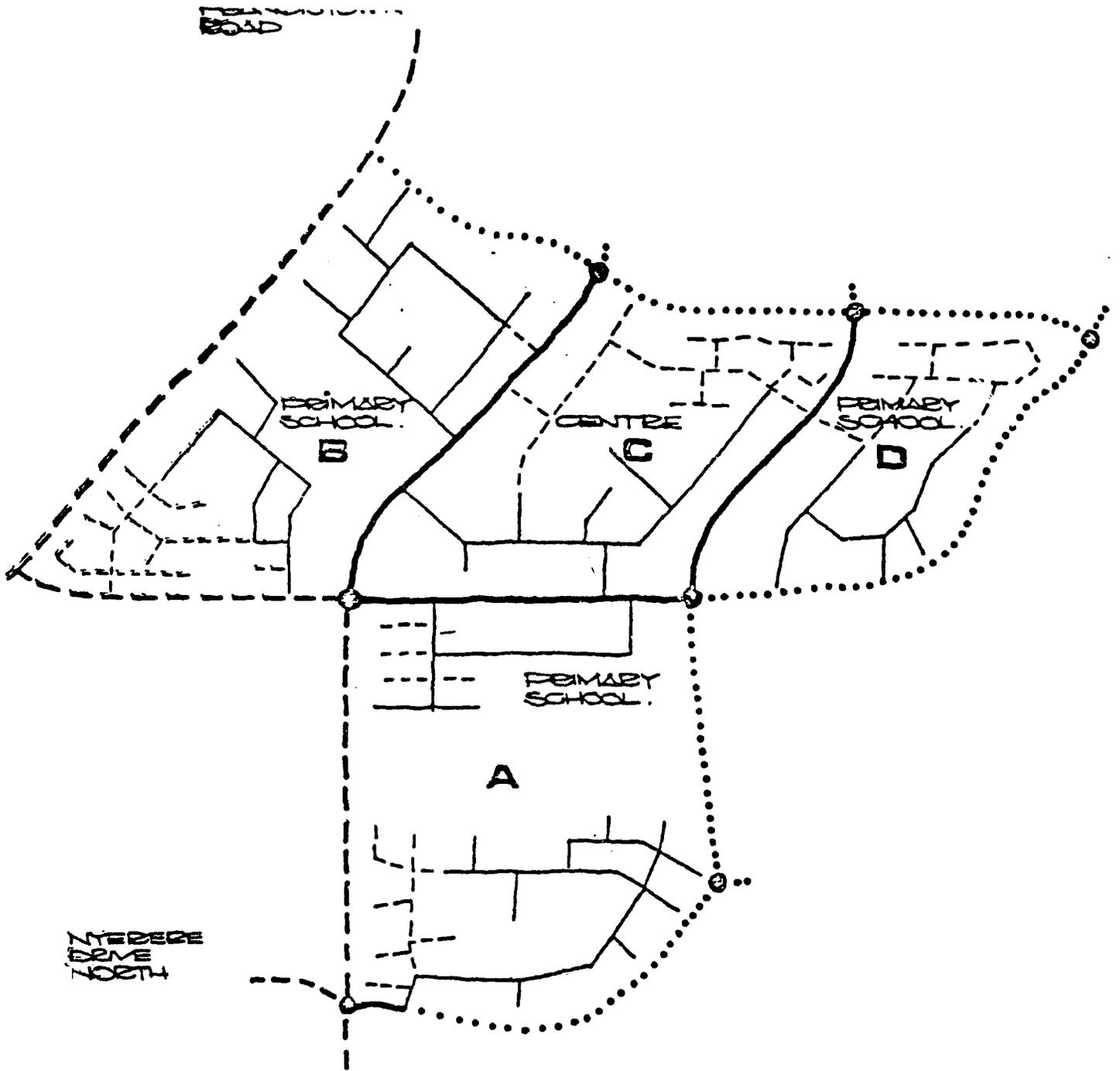


ESTIMATES BY URBAN DEVELOPMENT COORDINATOR

AUG 1978  
APRIL 1979

R. DEVAY

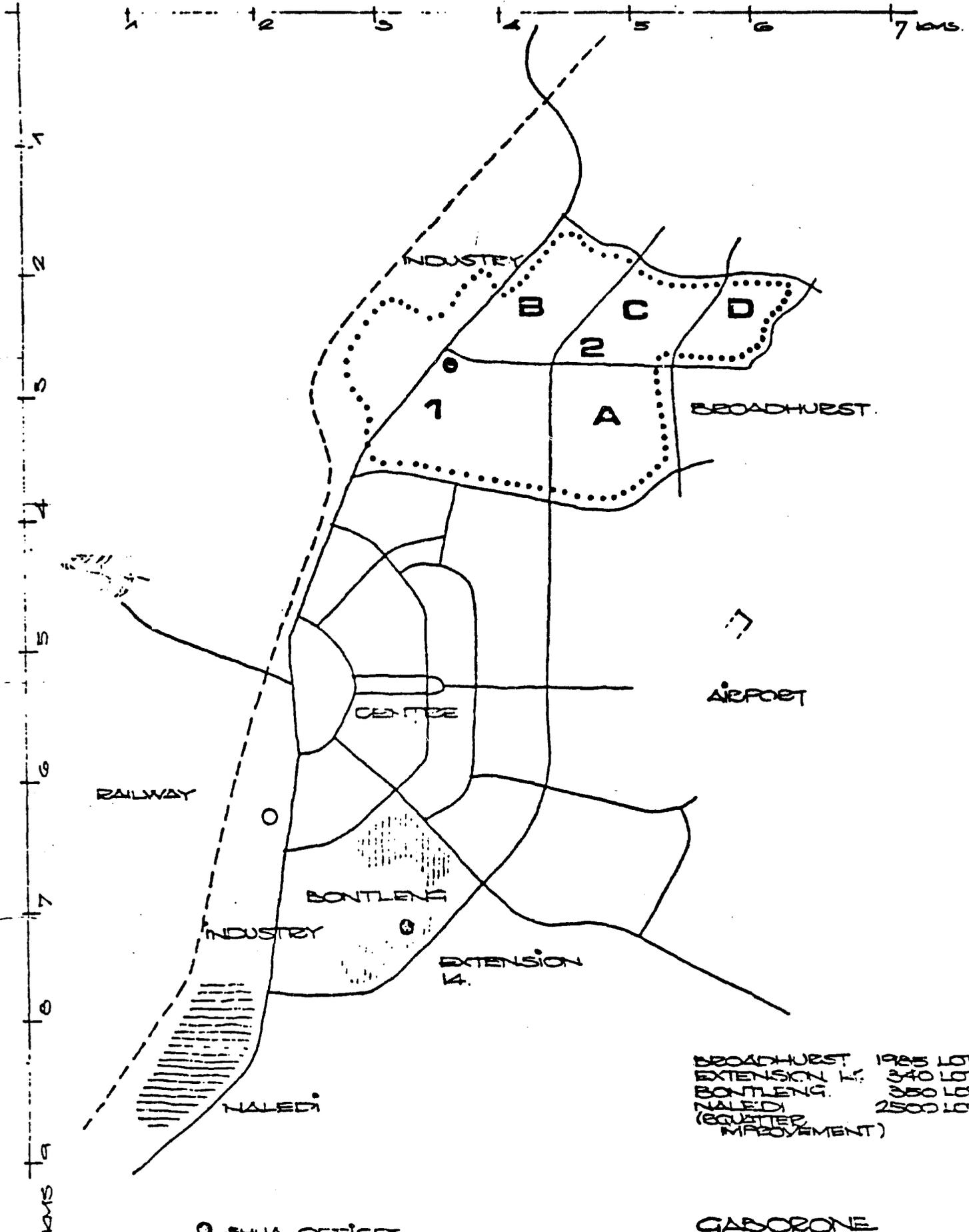
23 APRIL 79



ROAD NETWORK

- EXISTING PRIMARY
- ..... PRIMARY PROPOSED BUT NOT NECESSARY UNTIL STAGE III.
- MINIMUM PRIMARY TO SERVE STAGE II
- LOCAL NETWORK FOR PARTIALLY SERVED HOUSING.
- LOCAL NETWORK FOR HIGH AND MEDIUM COST HOUSING.

BROADHURST ROAD NETWORK.



○ SHIA OFFICES  
 ○ TOWN COUNCIL MATERIAL STORE

BROADHURST	1986	15
EXTENSION I.	1986	15
BONTLENT I.	1986	15
KALIED (COUNTRY IMPROVEMENT)	1986	15

**GABORONE**  
 LOCATION OF SELF-HELP HOUSING AREAS.

**SUMMARY DESCRIPTION OF PLOT ALLOCATION  
CRITERIA AND PROCEDURES**

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One of the more troublesome aspects of sites and services housing programs in developing countries is the allocation of plots to the lower income households on a fair, efficient basis. The Gaborone SHHA has instituted plot allocation criteria, procedures and education efforts which are worthy of replication elsewhere.

The following two-page illustration shows the Gaborone SHHA Plot Allocation System which was devised by the FCH Advisor, approved by the Town Council and has proven to be effective.

Applications are made at the SHHA central and ward offices. Assistance is provided in completing the simple application form. The staff processes the allocation in a matter of days (including household income check) and forwards it to the Town Council's allocation committee. The applicant must be a citizen of Botswana and resident of Gaborone for six months (new arrivals are discouraged because of policy favoring rural development rather than urbanization). Also, applicants must be at least 21 years of age (there are large numbers of younger household heads) and the applicant must not have a self-help plot or adequate housing.

Household income is limited to a maximum of P1,500 per year (\$1,800), except that 5% may have incomes up to P2,500 (\$3,000). The approximate median income in Gaborone is P1,500. Also, households with little or no incomes are excluded because qualified applicants must be able to afford the monthly service charge of P4.50 (\$5.40).

Priority is given to households living in Old Naledi, the largest squatter area, and other substandard housing areas. Within each of these classifications, households are ranked based on the point system shown on the illustration.

Eligible households are assigned plots as plots become available -- presently there is a substantial waiting list. Before 1978, plots were allocated without the households signing the Certificate of Rights. However, this proved unworkable because many refused to sign this agreement -- including the payment of monthly service charges and building a permanent house -- once they occupied the plot. Now they must sign the Certificate of Rights before they are authorized to occupy the plot. Not only does this document specify plotholder obligations, it is the leasehold title to the plot.

Before households sign the Certificate of Rights, the SHHA community development workers make sure that they understand the plotholder rights and responsibilities. Each applicant listens to a tape-recording (in Setswana) and is given a "comic book" entitled "Family Molefi's Housing Problems and How They Were Solved." Moreover, the community development workers provide individual counsel.

One of the more important areas of instruction is the responsibility of the plotholder to pay monthly service charges to finance secondary infrastructure development, low-cost sanitation, road and water supply maintenance and operation, trash collection, and SHHA operations. While the present charge of P4.50 (\$5.40) per month is readily affordable by most lower-income households, many do not pay because they feel they are not getting adequate services, they feel that they should not pay (i.e., Government should subsidize), or they think they can get away with not paying. A year ago, more than 50% of Gaborone plotholders were in arrears on their payments; now the rate is nearly 30%. The improvement largely is attributable to SHHA education efforts and improved collection procedures -- including systematic follow-up letters and actions for those who do not pay within 30 days. Also, the SHHA has greatly improved its record-keeping on plotowners by the use of programmable accounting machines with programs and procedures prepared by the FCH Advisor.

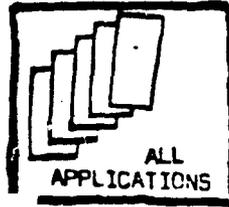
The Government of Botswana official policy is no subsidy of housing. However, the established charges do not meet present cost levels so both the GOB and the Town Council are providing subsidies. To eliminate these subsidies will require higher service charges and greatly improved collection rates -- both politically difficult, thus demanding effective education efforts by the SHHA and improved collection efforts by the SHHA and Town Treasurer's Department.

Another problem with the collection of service charges is that defaulting plotholders have not been forced to pay. The Certificate of Rights provided for the repossession of the plot, but this was considered too severe to be enforceable, thus no action was taken. The Certificate of Rights has just been changed to eliminate this repossession provision, thus allowing regular established debtor laws to apply. Since there is no experience with this change, its effects are unknown.

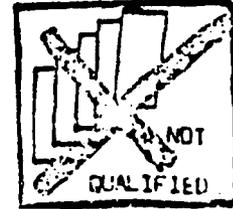
Botswana's ability to adequately house its rapidly growing urban poor largely depends upon self-help housing programs and affordable serviced plots. Central to these efforts are the effective allocation of plots and collection of service charges from plotholders. The Gaborone SHHA has made substantial progress on both counts, although more remains to be done to create adequate amounts of self-help housing on a non-subsidized basis.

GABORONE 34A PLOT ALLOCATION SYSTEM

Step 1 Take applications



Step 2 Reject those not qualified for reasons like under age or not citizen, etc.



Step 3 Calculate how many points the applicant has....

POINT SYSTEM INFORMATION

Spouse .....	20.
Children .....	5.
Sharing accommodation with rent..... X	40.
Sharing accommodation without rent.....	20.
Existing house scrap tin/wood/poly .....	50.
Existing house mud bricks .....	20.
Years in Gaborone .....	5.
Live 200M to 500M from water .....	5.
Live 501M to 1000M from water .....	20.
No sanitation at current home .....	40.
Pit latrine or similar .....	10.
Blind, crippled or missing limb .....	50.
Age greater than 65 years .....	30.
Second application for plot .....	20.
No. of persons in family .....	(A)
No. of rooms in house .....	(B)
(A)..... + (B)..... = .....	X 10.

POINTS ARE DETERMINED BY FACTORS TO THE LEFT AND INCOME

Step 4 Sort the applicants into 4 groups according to priorities ....



First priority is Old Naledi displacees



Second priority is displacees from thinning out process in Bontleng and White City.

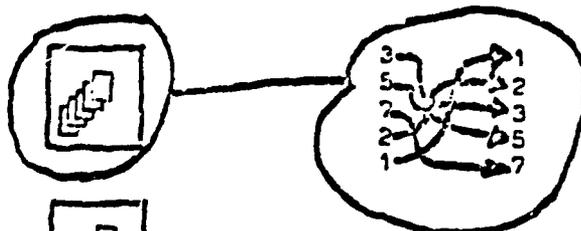


Third priority is squatters from anywhere in Gaborone



Last priority is any other person in Gaborone who qualifies.

Step 5 Working with the first priority, sort the applications according to the number of points.



Above is an example of how the numbers on the left might be put into order on the right according to their value

Step 6,7,8 Take each priority in turn, sort the applications according to the number of points,



Repeat step 5 for the other three priorities.

Step 9 Begin allocating plots starting with the highest number of points in the first priority and work toward the lowest number points in the last priority.



Starting with the highest points, allocate to first priority until plots are finished or...



If plots remain, starting with the highest points in priority 2, allocate until plots are finished or ...



If plots remain after above, starting with highest points in priority 3, allocate until plots are finished or ....



If plots remain after the above, starting with the highest points in priority 4, allocate balance.

SUMMARY DESCRIPTION OF BUILDING  
MATERIAL INVENTORY AND LOAN PROCEDURES

The Certificate of Rights provides that the plotholder must have a permanent house plan approved by the SHHA and at least one complete room must be finished within 12 months of the plot allocation date. To facilitate house construction, the SHHA offers technical assistance and building material loans.

The SHHA uses "do-it-yourself" scale models of houses so that people can design the house they prefer. Charts are designed to quickly indicate what size house the household can afford. The quantities and costs of building materials are calculated by disc slide rule charts as well. SHHA staff assist households with these determinations. (Also, SHHA staff provides advice during the construction process.)

Once an acceptable, affordable house design has been selected, a Building Material Loan Agreement is arranged and signed. Like the Certificate of Rights, this is a standard form prepared by the Government of Botswana. The Agreement provides for repayment by equal monthly payments over 15 years at 9% interest.

In recent years, the maximum building material loan has been P600 (\$720). However, this amount no longer is adequate to finance materials for a basic house of 20 M<sup>2</sup> plus separate toilet building. An increase to P800 (\$960) is proposed by the SHHA.

Households can only borrow as much as they can afford to repay, i.e., no more than 25% of monthly income for the service charge and loan repayment. To date 60-65% of borrowers have been eligible for the maximum loan.

Loans are made in building materials, not money. The SHHA stockpiles building materials at its project ward office depots and delivers the purchased materials to the plot using its trucks and tractors-trailers. For large bulk deliveries, the trailers are left for the purchaser to unload in the evening or on the weekend.

With the potential for thousands of building material loans outstanding, it is essential that the SHHA have the capability to maintain large inventories, process material purchases, and collect loan payments efficiently and effectively. To this end, the FCH Advisor has devoted a large share of his time in the past year devising systems, writing procedure instructions and training staff. His efforts have been augmented by short-term technical assistance and the purchase of programmable accounting machines and transport vehicles.

The material inventory and loan record keeping, processing and analysis programs which he has devised and implemented enable an accurate day-to-day monitoring of building material stocks and transactions, thus facilitating inventory control. Further, complete accessible accounts are maintained

on each loan, thus insuring that both the SHHA and the plotholder are aware of what has been borrowed and what remains of the loan.

These machines are usable in keeping track of loan repayments as well. However, revenue collections are the responsibility of the Treasurer's Department, not the SHHA. Nevertheless, the SHHA and the Town Treasurer's Department work together on revenue collections because the SHHA is involved with the building material loans and works closely with the plot plotholders.

The success of the SHHA's housing assistance programs depends upon: (1) adequate funds for building material loans; (2) availability of building materials; (3) efficient procedures for processing loans and materials; (4) trained staff in the ward offices for processing loans, handling building materials, providing construction advice, collecting loan repayments and providing community development services.

Because loan demand is likely to increase more rapidly than loan repayments, additional GOB and donor funds will be required for building material loans. Eventually, it may be possible to establish a revolving fund program.

Building materials mostly come from South Africa. While the potential to produce local materials seems limited, more attention to this potential might reduce the costs and supply uncertainty inherent in relying so heavily on imports.

The SHHA appears to have adequate procedures for handling building materials and loans but there is the major need for continuing training of Botswana in all facets of this program. This will be especially necessary if the workload increases much above 1,000 self-help houses per year -- as it is planned to do with Broadhurst III and Gaborone West overlapping one another and following Broadhurst II.

**A STATISTICAL REPORT ON APPLICATIONS  
FOR PLOTS TAKEN BETWEEN 27/05/78 AND  
13/10/78**



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## Background

In June, 1978 the Gaborone S-HA began taking applications for section A of BRII. Because the application process is well organized and considerable time spent training the group workers, we believe that the data from these applications represents the best sampling that has been available to the S-HA to date.

## Facts about the P. A. family income of 1118 applicants

1. The average income (arithmetic mean) for all 1118 applicants was P1276.10 P. A.
2. A more useful guide can be found by averaging those applicants with incomes near the median. Based on the data in figure B, we estimate that the median income of all applicants is about P 1000. By eliminating applications below P 200 and above P 2000, we found that 969 applications within the 201 to 2000 range had an average income of P 1061.56.

## Applicants with incomes too high for current funding

Three hundred and six ( or 27%) of the applicants had incomes above the CSO's estimated median income for Gaborone (P1500). Current agreements with CIDA and USAID do not allow more than 5% above the median income.

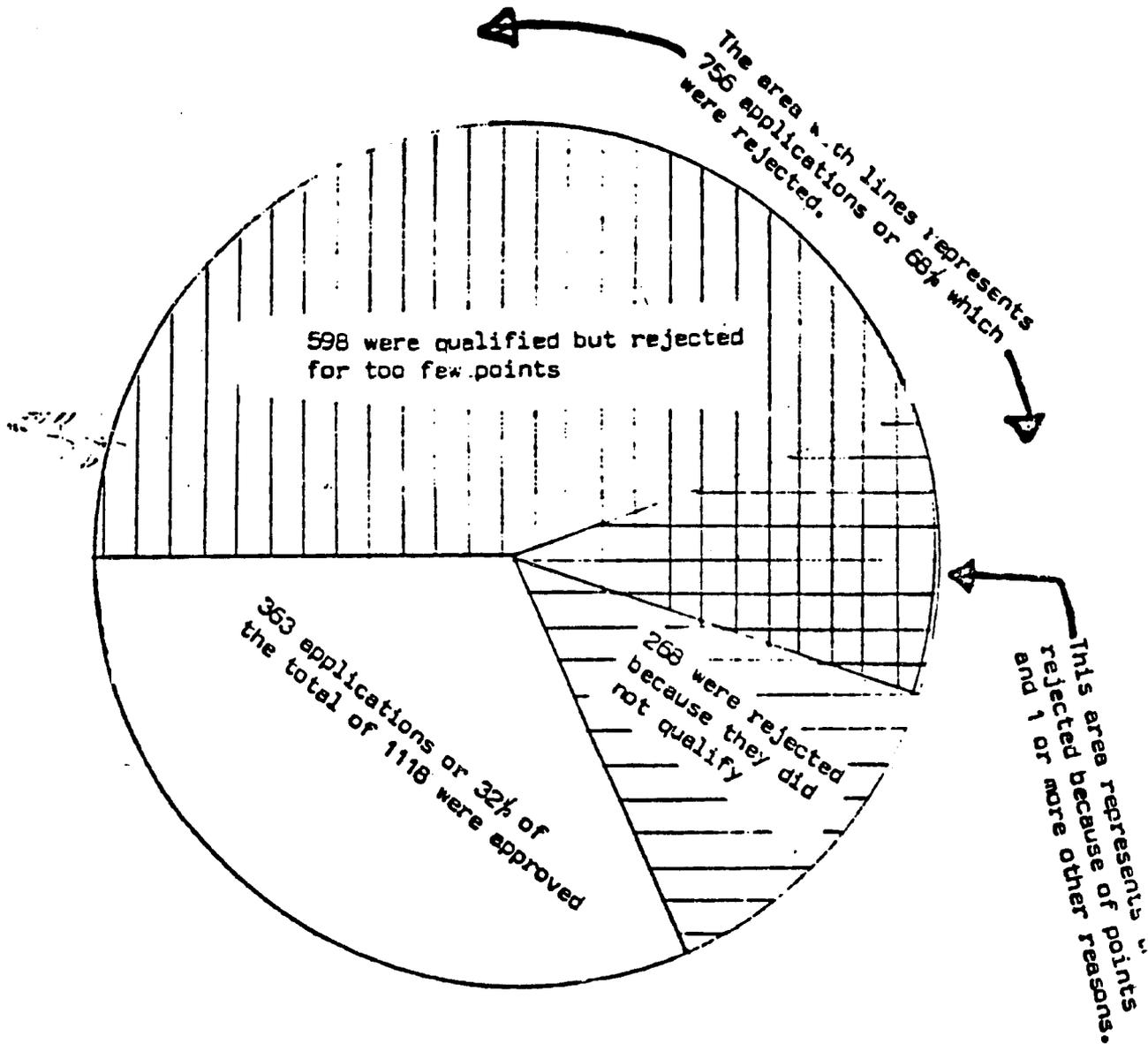
This figure may be misleading because most applicants were told of the P1500 limit and some with incomes above P1500 did not make a formal application. We do not have a record of the numbers of these "informal rejections".

## Point system

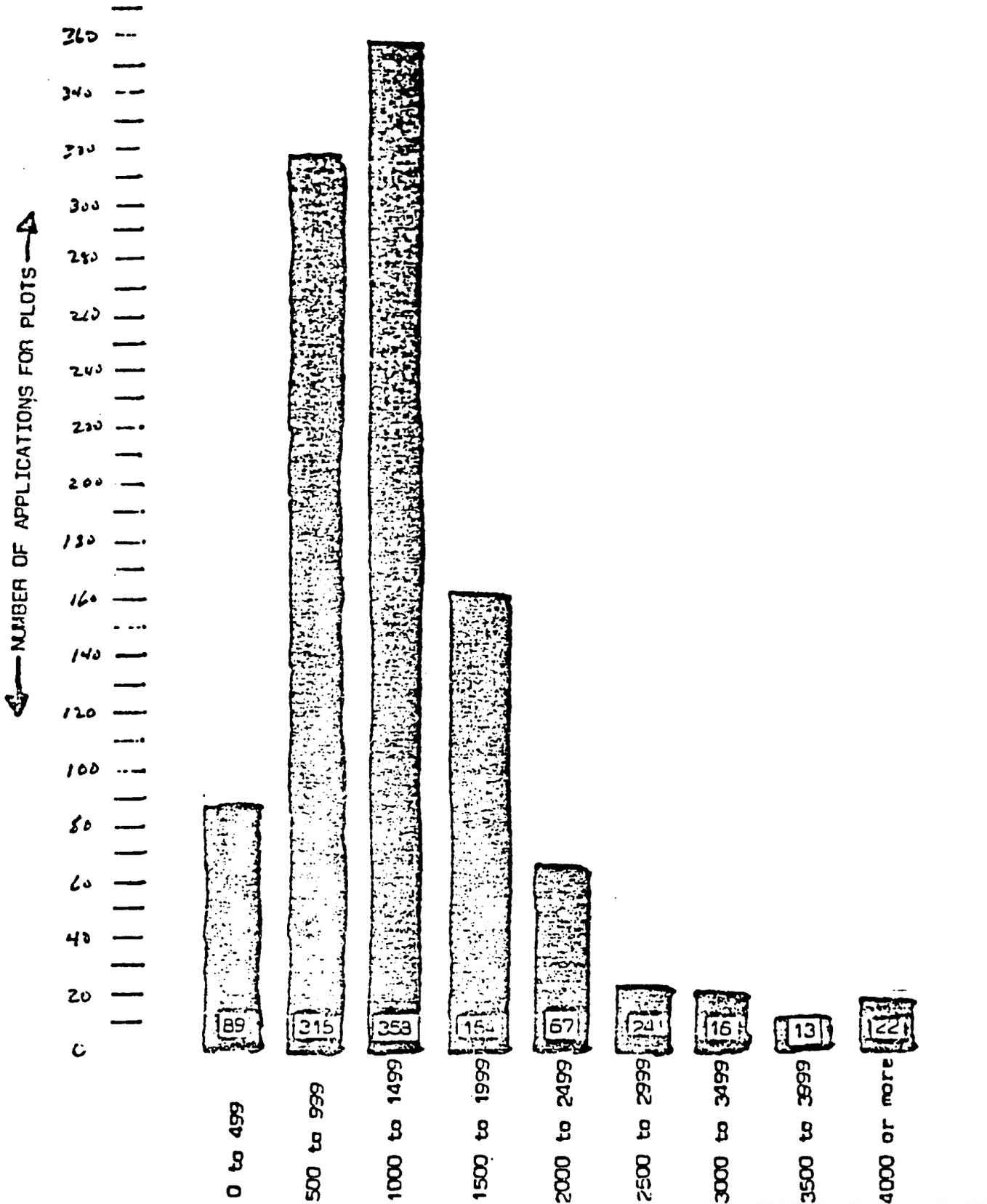
For administrative reasons, all applicants with incomes above P1500 were rejected by the point system. There was no need to create a separate category of rejections. The allocations of plots in BRII A never went higher than about 900 points (about 1000 to 1100 income) before the plots were allocated.

Figure A

This "pie chart" represents 1118 applications for S and S plots taken by the Gaborone SHHA between 27/06/78 and 13/10/78



THIS BAR GRAPH REPRESENTS THE  
FREQUENCY DISTRIBUTIONS OF GROUPINGS  
OF P. A. INCOMES GIVEN ON 1118  
APPLICATIONS FOR PLOTS.



## SELECTED CHARACTERISTICS OF OLD NALEDI POPULATION

In 1978 a Baseline Survey of the Old Naledi Squatter Upgrading Area was undertaken by the GOB Central Statistics Office and Botswana University with funding from CIDA and technical assistance from the CIDA Project Manager. The following data are from the draft report on the survey:

- 2344 households; 10,019 persons; 4.3 persons per household.
- population growth of 14 per cent per year, 1971-78; household growth of 5 per cent -- most growth because of increases in household size.
- population 57 per cent male, 43 per cent female; 60 per cent in working age group.
- 83 per cent of plot owners are male; female plot owners are younger.
- 88 per cent of owners built their own houses.
- Of the 1,977 owners, 133 want to move to Broadhurst while 1,844 want to stay in Old Naledi.
- Of the 295 renters, 49 want to live in Broadhurst and 246 want to stay in Old Naledi.
- 8.5 per cent of plots have more than one household.

- average plot size is 323 m<sup>2</sup>; 44 per cent less than 200 m<sup>2</sup>; large variation.
- mean persons per hectare is 102.
- housing quality: 27 per cent low (walls of mud, plywood, cardboard, plastic; roof of thatch, canvas or plastic); 48 per cent middle (walls of mud, brick, tin, block; roof of tin, thatch, asbestos); 25 per cent upper (walls of brick or block; roof of tin, asbestos or tile).
- housing attitude: 61 per cent feel housing is not adequate; 17 per cent quite adequate; 22 moderately adequate.
- perceived inadequacies: too small, 43 per cent; too crowded, 25 per cent; sanitation facilities, 12 per cent; far from water, 4 per cent; no room for garden, 7 per cent, other 9 per cent.
- 36 per cent feel that poor housing is "worst problem living in Gaborone," (food crisis, 20 per cent; inadequate income, 20 per cent; inadequate job opportunities, 13 per cent; crime, 6 per cent; high rent, 3 per cent).
- 43 per cent of adult population had never gone to school.

- 60 per cent of the children of school age attend school (below average for Gaborone).
- 48 per cent of adults are in work force, compared to 62 per cent for Gaborone.
- 94 per cent working males and 66 per cent of working females are in wage employment.
- The total work force of 3,303 includes 2,918 males and 385 females (61 per cent of the population 15 years and older is male, 39 per cent female, thus relatively few adult women work).
- 71 per cent of households have workers in wage employment; 12 per cent in self employment and only 1 per cent both in wage and self employment (remainder not specified).
- wage workers are mostly labourers (42 per cent) and artisans (19 per cent), while self-employed mostly sell beer (33 per cent) are traders (21 per cent) or sell fruit and vegetables (12 per cent).
- unemployment rate is not known.

## Botswana Housing Subsidy Analysis

While it is the official policy of the GOB not to subsidize housing, in fact the level of subsidy is significant and growing substantially. Major areas of subsidy are: (1) the inadequate revenues collected from service charges levied by town councils on households with Certificates of Rights plots (other households pay property tax rates or, in the case of squatters, no payments at all) and (2) the below-market rents for the 3,300 housing units managed by the Botswana Housing Corporation (BHC). Plot holders with Certificates of Rights are nearly all lower-income households in site and service and squatter-upgrading areas, while the BHC tenants are mainly civil servants. Subsidies to each of these groups are described below.

Service charges paid by holders of Certificates of Rights range from P2.00 to P4.50 (\$2.40 to \$5.40) per month, while the costs of servicing these plots probably is at least P3.00 (\$3.60) more. Since up to one-half the households are not paying these service charges, the effective subsidy level is much greater. Despite its "no-subsidy" policy, the GOB now provides P90 (\$108) to the Town Councils for each Certificate of Rights issued. In addition, the Town Councils are using other revenues to fund housing services.

In each of the next several years, it seems reasonable to project an annual average of 3,000 plots to be allocated in the four towns. At P90 (\$108) per plot, the GOB subsidy would average P270,000 (\$324,000). Within a few years, there will be at least 10,000 Certificate of Rights plotholders. If monthly service charges to these plotholders average P3.00 (\$3.60) less than cost of, say, P7.00, the annual subsidy would total P360,000 (\$432,000). If 40% of these plotholders did not pay their average P7.00 (\$8.40) service charge at all, the additional annual loss would be P192,000 (\$230,000). Thus based on present practice, total GOB and Town Council annual subsidy for lower-income housing in the four towns would be P822,000 (\$986,000) by 1982.

The rents charged by the Botswana Housing Corporation (BHC) on the 3,300 housing units it manages are significantly below economic (i.e., market) rent levels (i.e., approximately two-thirds of economic rents according to the 1978 Annual Report of the BHC). Housing rents for 1978-79 are estimated by the BHC to total P3,278,150 (\$3,934,000). If this total is only two-thirds what it would be were economic rents charged, then the total economic rents would be nearly P5,000,000 (\$6,000,000) -- thus implying a total subsidy of P1,700,000 (\$2,000,000) per year, or roughly P500 (\$600) per housing unit. However, the actual cash operating loss of the BHC related to these housing units in 1978-79 was about P400,000 (\$480,000), or P120 (\$144) per housing unit.

Thus, it is estimated that, based on present practices, housing subsidies in Botswana towns are approaching P822,000 (\$986,000) for Certificate of Rights plotholders and roughly P1,700,000 (\$2,000,000) for BHC tenants -- a total of P2,500,000 (\$3,000,000) per year by 1982. This is a large subsidy for a projected urban population of 170,000 (i.e., maximum of 40,000 housing units) in 1982; with a total Botswana population of less than 900,000 then.