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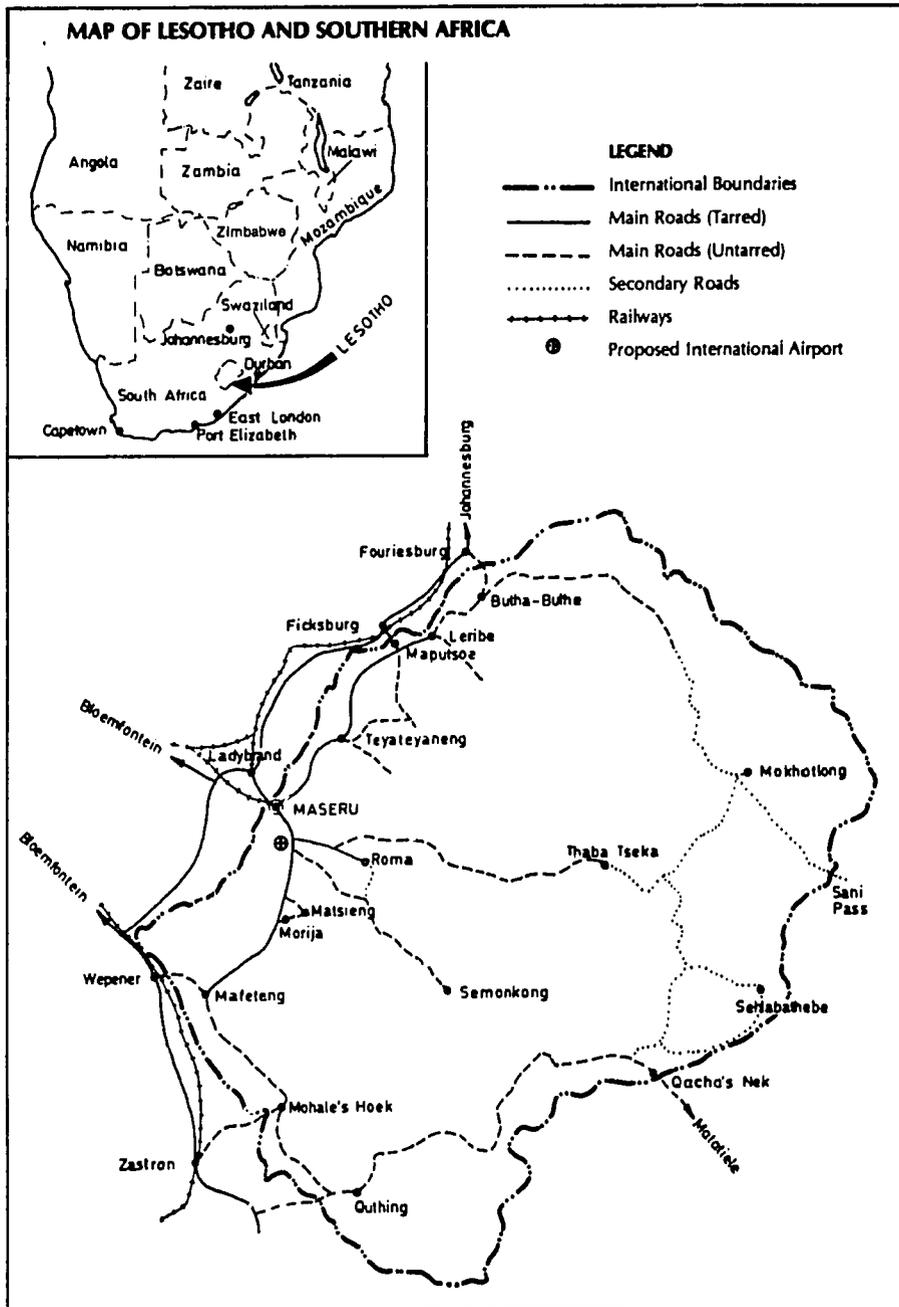
**AFRICAN ENTERPRISE:  
NEW BUSINESS IN THE  
MOUNTAIN KINGDOM  
OF LESOTHO**

A Case Study on the Growth of  
Building Materials Production  
for Lesotho's Low-Income  
Housing Industry



The Cooperative  
Housing Foundation

### MAP OF LESOTHO AND SOUTHERN AFRICA



## Preface

This is an account of a successful business enterprise which produces building materials and home furnishings in Maseru, Lesotho, a sovereign kingdom in southern Africa. In this era when business enterprise promotion and employment generation are by-words, the focus of this account, PRODUCTION SYSTEMS (PS), makes a good case for productive, profit-making endeavors. PS is a division of the Low Income Housing Company (LECHO-OP).

The Cooperative Housing Foundation's (CHF) technical assistance was funded by a grant (OPG-632-0089) from the U.S. Agency for International Development (USAID). CHF wishes to acknowledge the support of the USAID Mission in Maseru during the several years the program evolved.

The support of the LEHCO-OP staff and its General Manager, Gabriel Mphakalasi, is gratefully acknowledged. CHF would also like to recognize the enduring interest and support of Vincent Makhele, Minister of Rural Development and Cooperatives and the first

Basotho Manager of LEHCO-OP.

This report, prepared by CHF Development Anthropologist John P. Mason, was reviewed by Jack Down, former CHF Resident Advisor in Maseru, Richard Metcalf,

former Government of Lesotho Housing Advisor, and Jack Edmondson, CHF Project Manager.

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**Basotho laborers of PRODUCTION SYSTEMS mix concrete in a machine provided by USAID.**



**These Basotho were trained for jobs in the PRODUCTION SYSTEMS plant.**

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PRODUCTION  
SYSTEMS

BLOCKS

FURNITURE

COME IN

## I. Introduction

The mountain Kingdom of Lesotho offers a timely illustration of a growing self-reliance in its shelter efforts.

The Basotho, as the inhabitants of Lesotho call themselves, have maintained a tradition of entrepreneurial ability. Supported by international donor agencies, they have developed a successful enterprise for the production of building materials.

In the past, the Basotho built their own homes of mud and stone, and thatch roofs, which had been gradually replaced through the use of

modern South African building materials. In recent years, however, self-reliance in housing has been regaining its original place in Lesotho, both in regard to local building materials and labor.

The success of Lesotho's increasing self-reliance in the production of building materials and housing is one of the major themes of the following account. It includes a description of: housing in the country; the role of foreign financial and technical assistance in building the housing program; the local organization that carried out the new

housing program; and the specific assistance provided by both the United States Agency for International Development (USAID) and the Cooperative Housing Foundation (CHF) in supporting this project.

The focus of this report is the building materials production unit, known as PRODUCTION SYSTEMS or, more commonly, PS, which grew out of the Lower Income Housing Company (LEHCO-OP). At the same time, the report underscores the conditions of housing in Lesotho which ultimately led to the development of both LEHCO-OP and PS.

## II. Housing Situation in Lesotho and the Capital City

Until recently, the mountain Kingdom of Lesotho was almost totally dependent on the Republic of South Africa for its modern urban housing production. Bereft of natural resources—except water, stone, some narrow fertile valleys, and livestock—Lesotho's population of about one and one-half million is heavily dependent on South Africa for most of its imports

and jobs. Nearly all of Lesotho's major roads lead to the Republic; and its one mile of railroad track and its electric powerlines originate there. Most of the country's food, clothing and furniture are imported from South Africa, and its monetary exchange is totally based on that of its neighbor.

Almost a quarter of a million Basotho men work in the mines and industry of the Republic, leaving the country void of many essential skills, including housing construction skills. Another factor in

part responsible for the lack of a modern housing sector in Lesotho is the traditional land tenure system. All lands in Lesotho are leasehold, owned by the nation and held in trust by the King, who passes on the power of allocation to the tribal chiefs. Since there are no uniform procedures or guidelines for land allocation, the chiefs may sell land leases whenever they need cash, without regard to the resultant sprawl of buildings constructed on the fringes of the urban areas. Formerly, this



While urban sprawl has not produced high densities in Maseru, it has made the provision of water and sanitation facilities costly.

system did not allow the transfer of interests in the land, thus preventing the development of a mortgage market. In order to change that situation, the Lesotho Government adopted a Land Act in 1980 which provides for 99 year leases of residential sites and has encouraged the development of a construction industry as well as the financial institutions to serve the growing urban population.

Housing conditions in Maseru\*, the nation's capital, are generally representative of housing and sanitary facilities in Lesotho's other urban centers. Almost two-thirds of the Maseru population of about 70,000 are renters, with the remainder owning their own homes.

A small percentage of monthly income\*\* is devoted to housing in Maseru by low and average-income earners. Only 10 percent is spent on shelter by the middle-income family, which is low when contrasted to many other developing countries. Such a small percentage of earnings for housing expenditure will cause major problems for the new housing industry. Moreover, building construction in Lesotho is expensive because imported materials are costly and transportation costs high. The Ministry of the Interior in Lesotho

estimates that, typically, at least one-quarter of monthly income is required to amortize a loan and pay monthly interest payments for a modest dwelling meeting basic safety and sanitary standards.

Because a modern shelter program did not exist in Lesotho until recently, there has been a backlog of housing need. In Maseru, the severity of the problem is aggravated by a shortage of building sites, a lack of low-cost public transportation to the employment centers of the central city, and a lack of piped water. The housing shortage is greatest at the lower income levels, due to migration from rural areas and a high birth rate.

The low income housing program and materials production center described in this report were designed to serve this poor urban population.

### **Housing Needs and Demand in Maseru**

Housing need differs from effective housing demand. Housing need is based on the number of households which are without adequate shelter regardless of their ability to afford decent, safe and sanitary housing. Effective demand, in contrast,

measures the number of households in need of shelter which can afford to pay for structurally sound and sanitary housing.

According to the World Bank, between 1970 and 1980, Lesotho's population grew at an annual rate of 2.3 percent, while its urban population increased at an annual rate of 7.7 percent. Given the Government's conservative estimate of Maseru's population in 1980 of 65,000 and the average figure of 5.6 persons per household in owner-occupied homes, there is an annual need for 890 new housing units in Maseru. The Government of Lesotho has estimated, however, that effective demand is only 570 units per year.

The necessary capital requirements for housing amount to a sizeable 20 million Maloti (about US\$24 million). According to the recommendations of the report on housing in Maseru cited below, 5 million of that (about US \$6.1 million) could effectively be channeled to

\* This section is based on a report by Richard Metcalf, "A Comprehensive Analysis of Housing in the Urbanized Area of Maseru, Lesotho," Ministry of Interior, July, 1981.

\*\* Median monthly household income in urbanized areas in mid-1980 was 139 Maloti, or US\$169 (one maloti = US\$1.22).

low-income families. The remainder could be tied to projects for middle-and upper-income families.

Given the financial constraints on housing development, one possible solution, also cited in the same report, would be to provide preferential loans for poor families who agree to rent one of the two rooms in their new house to another low-income family. In this way, a steady income would be made available to new home owners, enabling them to pay off their building loans. Furthermore, it would effectively provide housing for two families instead of one.

Lesotho's housing situation must be compared to urban conditions in other developing countries. For many of the latter a sizeable growth of urban centers is occurring because of the rural push—urban pull. The result of rural migration to urban centers in search of jobs and schooling is overcrowding with the resulting spread of squatter

settlements. Maseru, on the contrary, does not have any high density squatter settlements—one does not see many tin or cardboard shacks which are common in many cities of developing countries. On the other hand, Lesotho's capital city does have some urban sprawl. This makes the delivery of water, sanitation, and electricity services, and the building of roads, schools, clinics and other community services difficult and costly.

Despite the urban sprawl in Maseru, it must be noted that the housing which has resulted from the extension of the water and sewer lines is generally built of solid materials. Most of it is constructed of stone—locally acquired—which is held together by mud and/or mortar.

If any one shelter problem can be diagnosed as more pressing than any other for Lesotho, it is the combined situation of inadequate water supply and sanitation. Much

of the water has to be carried by hand 1000 feet or more. Some 13 percent of the residents have no toilet facilities and an additional 30 percent have to rely on buckets for sanitation. Low cost sanitation methods are now being developed, an approach which will allow the spread of meager funds to the greatest number of people.

All in all, then, the housing picture in the capital city of Lesotho is by no means as drastic as it is in many other cities of the third world. Nevertheless, it was felt within the government that some attention must be given to the housing situation of the country before it deteriorated further. This was so, both in terms of filling a growing need for improved shelter, and in creating the ability to act on its own, independently of its neighbor, in fulfilling that need. Into that context, donor assistance was introduced as a primary stimulus.

### III. The Stimulus of Donor Assistance in Low-Income Housing

In the early seventies the Government of Lesotho began to focus on a national housing policy. From that evolved a national program, with emphasis on housing for the poor. In 1974 the United Nations Development Program (UNDP) commissioned the International Cooperative Housing Development Association (ICHDA) to do a feasibility study on low-cost and self-help cooperative housing. The report recommended a pilot program of low-cost housing. UNDP's

funding arm, the Capital Development Fund (CDF), made a grant of \$845,000 for water and sewer facilities, roads, and for a revolving home mortgage loan fund for a 200-unit housing project. UNDP also made a grant of \$520,000 for implementing the pilot program. The Government of Lesotho agreed to pay the project's annual recurrent costs.

#### **LEHCO-OP: Lower Income Housing Company**

In 1975, ICHDA sent a housing advisor to Maseru to help the Basotho set up the recommended pilot project of cooperative housing. The

leaders intended this project to be a pilot demonstration effort which would strengthen Lesotho's then emerging national shelter policy. As a sign of the project's importance to Lesotho, the King himself inaugurated it. To organize the project, a technical service organization\* was created in 1975 by the Government and ICHDA, named the Lower Income Housing Company, LEHCO-OP.

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\*A technical services organization, or TSO, is a generic term for a private or quasi-public sector organization that sponsors, develops and/or manages housing cooperatives.



**Skilled Basotho workers, trained in the LECHO-OP program, put their skills to work.**

## Objectives of LEHCO-OP

- Provide Low-Cost Housing in Market Towns
- Make Home Improvement Loans Available to Poor Families
- Create Income Opportunities in Construction Industry and Room Rentals
- Build a National Institution Capable of Producing Low-Cost Housing Throughout the Country

One objective of LEHCO-OP was to provide low-cost housing in market towns. Another was to make home improvement loans available to the poor, who did not have access to credit for that purpose. Yet a third objective was to create income opportunities through employment in home construction and the building materials industry, as well as from room rentals by new home owners. LEHCO-OP also had the objective of creating a national capacity to provide unsubsidized, low-income housing. Another aim that evolved early on was the production

of local building materials, a topic considered in the next section.

The pilot project funded by UNCDF and implemented by LEHCO-OP was known as the Mohalalitoe Cooperative Housing Society. Families were selected for the cooperative according to the requirements that they had dependent children, were in need of housing, and yet were able to make a small down payment and maintain monthly charges on the house. In fact, the requirements meant, almost by definition, that these were families which were *not* at

the lowest income level. Nevertheless, certain principles of the low-cost housing program have been demonstrated in this project.

Under the initial phase of the project, 185 units were completed. Close to a thousand units have been planned or completed in later phases under Canadian International Development Agency and World Bank funds. Organization and construction techniques used in cooperative housing projects, including a modified self-help approach, were taught to the beneficiaries through on-site training during construction.

#### **IV. Production Systems: Self-Sufficiency, Economy and Jobs**

One of the critical concerns of Lesotho's infant housing industry was its lack of quality building materials. Several alternatives were considered and rejected. Family businesses in the river areas had traditionally supplied burnt brick of a high quality, but their output was far too small for a major housing project. Similarly there were too few skilled stone masons to take advantage of the abundant hard stone, even though stone has been a traditional building material in Lesotho. Local cement blocks were expensive and of an indifferent quality. High prices had to be paid for South Africa's quality products. Undependable delivery was another price of dependence on outside sources. As a result of producing building materials in Lesotho, jobs would be created inside the Country and the foreign exchange in its balance of payment with South Africa would be conserved.

The formation of PRODUCTION SYSTEMS (PS)\* under the aegis of LEHCO-OP in 1977 was modest, indeed. Its mandate was to produce and supply low-cost building

#### **Objectives of PRODUCTION SYSTEMS**

- Ensure Delivery to LECHO-OP of Concrete Blocks of the Best Local Quality at the Most Competitive Prices
- Furnish Products for Beneficiaries of LEHCO-OP Projects
- Expand to Fill the General Public Demand
- Earn a Profit
- Generate Jobs

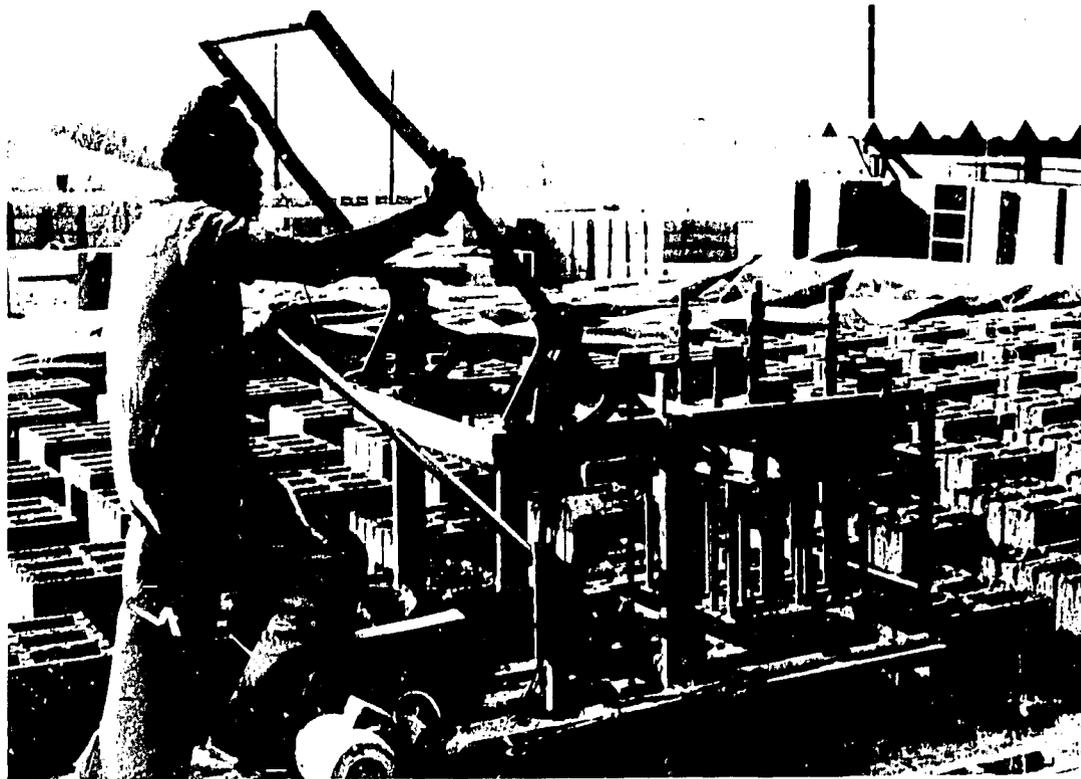
materials for all of LEHCO-OP's projects. PS' origin was not all neat or pre-planned, its objectives (as seen in the accompanying chart) having evolved only gradually. No formal agreement between LEHCO-OP, the parent

organization, and PS was made, initially making for

\*While PS began as a small business, it soon mushroomed into a more sizeable entity—certainly not small relative to other business organizations in Lesotho.



**PS' block making division provides high quality concrete blocks and also creates jobs—one of the organization's prime objectives.**



**This block making machine, funded under a USAID grant, can produce at least 2000 concrete blocks a day.**

difficulties in its administration and financial accountability. In fact, some question arose concerning the use of donor funding by LEHCO-OP in setting up PS, given the absence of an appropriate and timely notification to the donor. Nevertheless, PS would seem to be one of those cases where the results justify the risk of going into a new business venture. Lesotho is far better off now than ever in its production of building materials and furniture.

PS began its production crowded into two very small facilities. The first advisor to this project was a volunteer who succeeded in helping to produce the first cement blocks; he also designed the first windows and doors. Unfortunately, since he was not experienced in housing construction, the doors and windows had design flaws; meanwhile the block-making machine which was designed to produce 1500 to 2000 blocks per day, was only producing 425 per day.

Faced with many technical and managerial difficulties, the leaders of LEHCO-OP requested the British High Commission to send a millwright advisor, who would ultimately act as salesman, personnel manager and trainer.

Originally, PS had the status of a department under the direction of LEHCO-OP. PS' major customer was and still is the parent organization, although after first filling LEHCO-OP's requirements, it is permitted to sell

directly to the public, including contractors. Under an agreement between LEHCO-OP and PS, a contract was placed for 700,000 concrete blocks to be used in LEHCO-OP's ongoing housing projects. Fortunately, because LEHCO-OP agreed to purchase cement by the railroad carload from the Cement Marketing Organization jointly for itself and PS, funds were freed for PS' use in increased block and joinery production. A surplus stock of 120,000 blocks was produced in order to adjust to the lag time in cement delivery and to permit sales to the public.

PS had as one of its objectives job creation. This it shared with LEHCO-OP as one of its original program commitments. In fulfilling that goal, PS grew to employ 70 people. That number was eventually reduced as part of an efficiency move and the wages of remaining employees raised. As of December, 1981, at the end of USAID's grant to CHF, the number of employees had returned to over 70 because of increased production, not overstaffing, as before.

PS facilities have expanded along with production, including: addition of a new concrete products slab to serve as the platform on which the blocks are made;

and new machinery, including mixers, block presses, and a joinery plant. Although the production level was originally only 450 blocks a day, it was most recently measured between 2,300 and 2,400 a day. That level has been paralleled by an increase in take-home pay of 20%. These blocks are high quality and are competitively priced at \$.57 per six-inch block, compared to \$.60 from the closest competitor.

In addition to block production, PS has a joinery where it produces cabinets, furniture, and window frames, among other items. The management of PS

decided to produce these higher cost products because there was a real demand for well tooled wood and joinery products and they yielded a higher margin of profit than other lower cost items. Prototypes for low-cost furniture and building items were produced and included a hanging wall table, bunk bed, kitchen cabinet, wardrobe, double and single bed, and window and door frames. These items are now being produced on a regular basis and are very popular in Maseru. While many of the items are not affordable by low-income families, their production by PS has helped to maintain profits.



**PS' original furniture workshop produced for general use—not just low-income households—a decision based on economic survival.**

## V. USAID-CHF Advisory Role

PS's expansion and improvement have taken place with the assistance of USAID. CHF assigned a technical advisor to work with PS in February, 1978, under what is called an Operational Program Grant. Besides funding the advisor, the grant included \$75,000 for buildings, work area, machinery and tools. A later extension of the grant included \$100,000 for purchase of new machinery and raw materials.

One of the most important goals of the technical assistance effort was to train and promote Basotho personnel during the early years of the project. In this spirit, the ICHDA project director of

### Role of the CHF Resident Technician—To Advise PS on the:

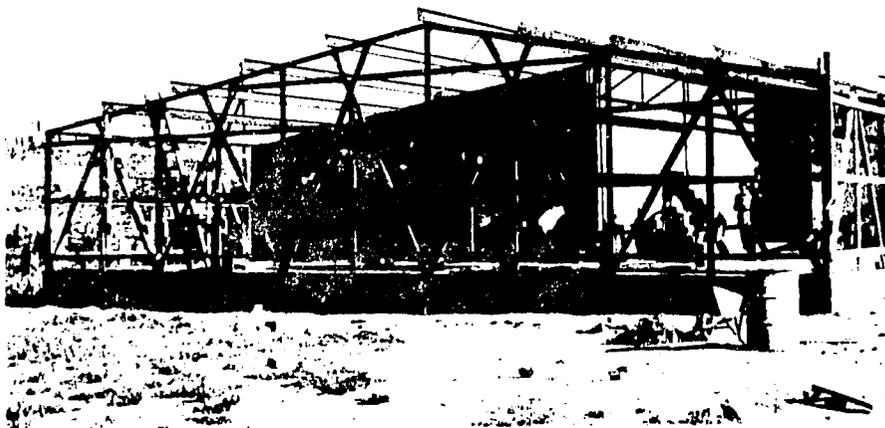
- Design of a Financial Reporting System
- Development of a Marketing and Advertising Program
- Creation of a Program of On-The-Job Training in Joinery Skills
- Drafting of Policies and Procedures for Employees
- Streamlining of Manufacturing Operations
- Construction of New Production Facilities

LEHCO-OP, funded through the UNDP, stepped down once the project was well under way to make way for a Basotho.

The CHF advisor to PS, commencing in February, 1978, and continuing through 1981, had responsibilities in a broad range of activities, including finance, management, training, marketing and construction. The advisor

focused on working with the Basotho employees in improving the finance management system of PS. This included streamlining and updating the accounting system, designing and installing a financial reporting system, and providing the financial planning for 1978-1979 and 1980-1981. Together they produced a "Manual of Accounting Procedures for PS". The CHF advisor also advised the Basotho on the improvement of PS manufacturing operations, and devised a system of manufacturing cost-control. Furthermore, the advisor helped in designing a marketing and advertising program for PS products.

To encourage employee participation in the management of the operation, the advisor worked with the staff to develop policies and procedures for accounting and



**PS' woodworking plant was funded under a USAID grant.**

reporting, job descriptions, and for defining the relationship of PS to LEHCO-OP. The advisor helped to create a program of on-the-job training in joinery work. A program was also formulated with the advice of the CHF resident technician to train PS personnel in supervisory skills.

The advisor helped supervise construction of a 1500m<sup>2</sup> block-making facility. That facility has a productive capacity of one-half million blocks per year. In addition, CHF provided specialized short-term advisory services to assist in plant layout and design for a modern joinery outfitted with semi-mass production equipment.

One activity the CHF advisor was working on just prior to his departure, was to tie PS to the local credit union structure in Lesotho. Once established within LEHCO-OP projects, these local credit organizations would permit project beneficiaries to buy building materials and home furnishings from PS on low-interest credit.

One valuable product of the CHF advisor's activity in Maseru is the "Operational Procedures Manual for Productive Systems." This manual systematizes the many aspects of PS' work

and incorporates its contents in a training program. Its impact on the long-term operations of PS could be significant, a factor which should become clear a year or two from the time of the advisor's departure.

Finally, one of the most difficult objectives accomplished was to work out the most beneficial relationship between the non-profit LEHCO-OP and the profit-making division, PS. If PS were to be successful as a

business operation, then the link to its non-profit parent had to be defined carefully in financial and managerial terms. A protocol was worked out for the two units through the assistance of the CHF advisor in December, 1981. This defines the working relationship between PS and LEHCO-OP in terms of the former's right to make a profit but with the responsibility to serve the low-income beneficiaries of LEHCO-OP's programs.



**This talented Basotho woman, with the help of training, rapidly worked her way from PS' bookkeeper to accountant.**

## VI. Lessons Learned

Technical assistance or technology transfer from industrial to third world settings is not easy. In the case of housing cooperatives—such as for LEHCO-OP—or employment generation programs—such as for PRODUCTION SYSTEMS—it is not simply a matter of introducing the concepts and the material, then expecting results. At least in part, it is a matter of meshing two different systems, two cultures, if you will. One, the industrial, is rooted in a work ethos of "get-it-done: because if not, it will cost profit and time." The other, the developing world, whose peoples also work for specific results, is more geared to traditional modes where other values, such as those rooted in a kinship-centered, non-materialistic orientation, often operate.

Nevertheless, when a Western system of thinking and doing met with an African system in Lesotho, positive results occurred. One result is that through PS, Lesotho has made a start in reducing its dependence on South Africa for building materials and home furnishings. Despite early success in that realm, Lesotho will no doubt remain dependent on the Republic for

most basic commodities, given its limited resource base. Furthermore, the new building materials industry has created jobs for the Basotho in their own country. What is equally significant is that the Basotho have shown themselves to be energetic and enterprising in the realm of low-income housing. They have begun to create the nucleus of a housing industry and if this capability can be transferred to other sectors, so much the better for Lesotho. That would affect not only the larger, socioeconomic position of the country but would also touch the individual Basotho in important ways, in that more jobs and a greater array of consumer items could become available.

On the project level, some salient lessons have been learned. One is that in a project such as LEHCO-OP and its offshoot PS, commitment is an important ingredient. In the case of PS, understandably, the directors and management of LEHCO-OP sometimes wavered in their support of the effort. During times when PS was not in a position to break even or show a profit, support waned. Conversely, when a clear profit was evident, support increased. This situation is not unnatural, given the risk factor involved in such an effort. Since private investments

were not made in PS, however, the risk was not a personal one. And, while the exercise of public trust over development funds is essential, an attempt to promote and organize production on a competitive basis could perhaps have been treated with more flexibility. As it turned out, the risk of using public funds in a business venture was worth it.

Another factor which did not facilitate the PS effort was the company's relationship to LEHCO-OP. If PS was to operate as a company for profit, then its financial operation had to be kept separate from that of the parent group. In other words, it was best not to mix the profits of PS with the operating budget of LEHCO-OP. Since PS was aiming for a self-sustaining status, it required a degree of independence in financial and administrative matters. This issue seems to have been satisfactorily resolved in light of the December, 1981, protocol between the parent company and its business division.

A final matter concerns training and the speed with which people can be recruited for or promoted to management positions. While training Basotho for skilled labor positions within PS has worked very well, the complexities involved in readying

staff for management of a million dollar operation have been formidable. The problem is a perennial question in the development process: should technical advisors provide a model for a host country national by actually *doing* the job or should they

train the person from 'outside' the position? In the first case it means doing the work of the national, a situation which other nationals criticize as 'taking over.' On the other hand, formal training alone may not be effective, since management functions

must also be demonstrated by example. Thus, advisors may find themselves in a dilemma, of 'doing' versus 'advising.' This is a dilemma which is not easily resolved. In fact, it is a condition perhaps endemic to development technical assistance.



**PS' woodworking is done by skilled craftsmen trained on the job.**

## VII. Conclusion

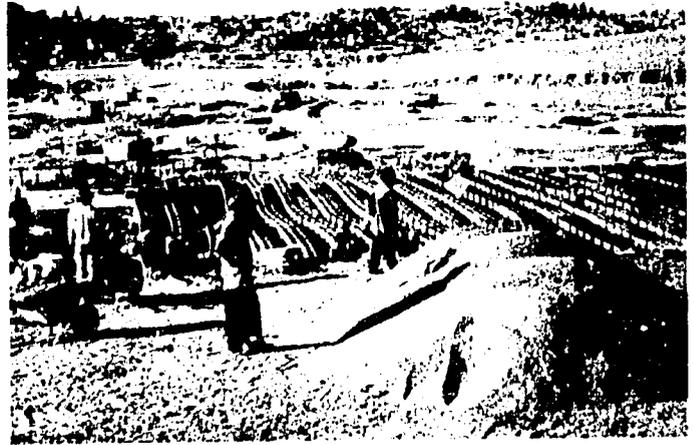
That PS has survived many crises shows that there is a strong need for a business like it which manufactures needed materials and creates jobs. That the operation has succeeded is something of

which the Basotho can be proud. After technical assistance terminated, both commitment and hard work from the Basotho continued to be required to guarantee the permanent success of PS.

USAID can be satisfied in knowing that its funds have been effectively utilized

in bringing to life the concept of the small and medium-sized enterprise which contributes to the development process and ultimately to the benefit of people in need of its economically-priced products. It is an idea whose time has certainly come.

**Through PS' economic manufacture of quality building materials...**



**housing is now within the reach of many more of Maseru's residents.**



# production systems

**PETTY CASH VOUCHER**

**Serial No.:**

<b>Issuee's name</b>  	<b>Date</b>  			<b>Account</b>  						
<b>Particulars of goods/services to be purchased</b>  			<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2" style="text-align: center; padding: 2px;">Estimated Amount</th> </tr> <tr> <th style="width: 50%; text-align: center; padding: 2px;">Rands</th> <th style="width: 50%; text-align: center; padding: 2px;">Cents</th> </tr> <tr> <td style="height: 30px;"></td> <td></td> </tr> </table>		Estimated Amount		Rands	Cents		
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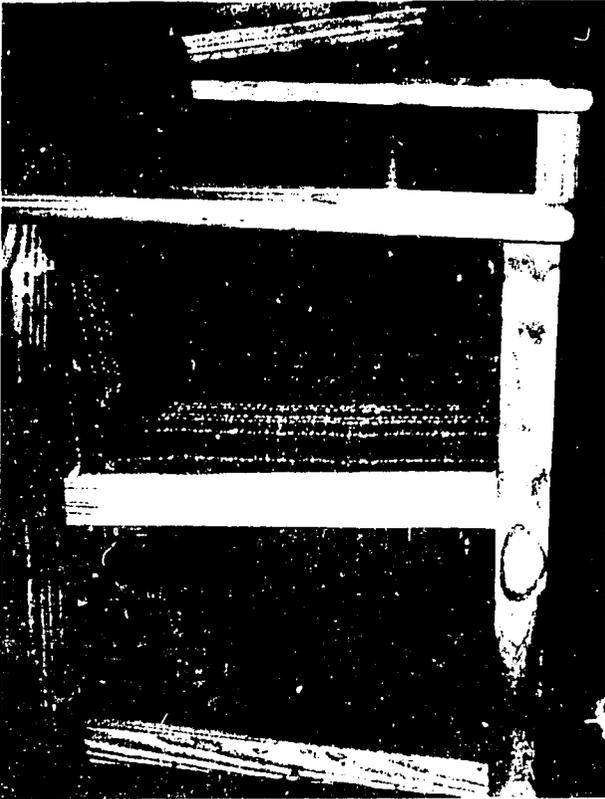
I have received the above-noted amount for purchase of the goods/services specified.

\_\_\_\_\_  
 Signed (Issuee)  
 Date:

The actual cost of the goods/services was R\_\_\_\_\_ as evidenced by the attached receipt/invoice No. \_\_\_\_\_. Details have been entered in the Petty Cash Book.

\_\_\_\_\_  
 Signed (Accounts)  
 Date:

**Sample of PS Petty Cash Voucher**



**Samples of PS home and office  
furniture**

