[redacted] Sanitation Project

LES/82/007

Ministry of Health

Ministry of Interior, Chieftainship Affairs and Rural Development

END OF PROJECT EVALUATION WORKSHOP

PROCEEDINGS

LESOTHO

December 1986

PREFACE

This document reports on the End-of-Project Evaluation Workshop, held between 25-28 December, 1986, to review the activities of the pilot Rural Sanitation Project. Part I contains a summary of the workshop findings and recommendations. Part II is the set of documents which were presented to workshop participants to provide background information for presentations and discussions. These documents include reviews of the activities of the major project components and the results of a series of monitoring and evaluation exercises.

The pilot Rural Sanitation Project was undertaken between October, 1983, and December, 1986, in Mohales Hoek district, with the brief to develop the most appropriate strategy for a national Rural Sanitation Programme. The completion of the pilot phase has been followed with the launching of the National Rural Sanitation Programme in January, 1987.

The project was jointly implemented by the Ministry of Health and the Ministry of Interior, Chieftainship Affairs, and Rural Development, with donor support from the United Nations Development Programme (UNDP), and the United Nations Childrens Fund (UNICEF). The Technology Advisory Group (TAG) of The World Bank was the executing agency, and additional funds were provided by United States Agency for International Development (USAID).

The authors would like to thank the many people who have assisted in the production of this report. The views expressed are not necessarily those of the Government of Lesotho or any other agency.

Dear Clement
Please look through this to consider
(1) what problems identified in this study will be relevant to your test community
(2) how will you overcome these problems
JC

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PART I

SUMMARY AND RECOMMENDATIONS OF THE RURAL SANITATION PROJECT EVALUATION WORKSHOP

1. Introduction

The Rural Sanitation Pilot Project Evaluation Workshop was held at the Hotel Mount Maluti, Mohale's Hoek, between 25 - 28 November, 1986. The workshop was attended by representatives from the ministries involved with the planning and implementation of the project, donor agencies, associated projects, and other interested parties. The workshop was officially opened by the Deputy Principal Secretary for Health, Mr. Teboho E. Kitleli, and closed by the Principal Secretary for Planning, Employment and Economic Affairs, Mr. Kevin M. Manyeli. A full list of participants and the workshop timetable are included in Part 2 of this report.

The workshop marked the end of the three-year pilot phase in the development of Lesotho's National Rural Sanitation Program. A review was undertaken of progress made in developing and beginning implementation of an on-site sanitation strategy for rural areas which will be implemented on a national scale. THe workshop was the first in what is planne to be a series of annual evaluation exercises which will continue to review program progress during the forthcoming expansion phase.

The objectives of the Workshop were:

- To review RSP progress and achievements to date and examine the effectiveness of the current implementation strategy in attaining pilot project objectives;
- To review and discuss the findings of the first field-test of the RSP Plan of Operations for Monitoring and Evaluation;
- To discuss the likely effectiveness on a national scale of the implementation strategy developed in Mohale's Hoek District;
- To propose modifications and improvements to the current implementation strategy which may be introduced during the forthcoming period of expansion to a National Rural Sanitation Program.

Workshop participants were provided with background papers on progress within the various project components as well as reports of the findings of a series of evaluation exercises. These papers are included in this document. During the workshop project staff gave presentations drawn from these papers, and a short field visit was also made to one of the project pilot areas.

As the workshop progressed, participants divided into four groups to review and discuss different aspects of project implementation, and reported back with recommendations for the forthcoming expansion to a National Rural Sanitation Program. Discussion-focussing questions which were presented to each of these groups are found in Annex 6 of this document. These recommendations, and the general findings of the workshop, were then composited into a set of resolutions which were adopted at the closing.

The overall consensus of the workshop was that the pilot Rural Sanitation Project has been highly successful, and had achieved its basic goal of developing and testing a viable strategy for providing the rural population of Lesotho with adequate on-site sanitation. The decision to proceed with an expansion to a national program was strongly endorsed.

2. Main Issues

The following issues were highlighted during the workshop presentations:

- The need for an integrated approach to improvement of water supplies, sanitation, and personal/community hygiene through health education and social marketing, within the context of a comprehensive Primary Health Care programme, is required in order to achieve significant and sustained health status improvement in rural communities.

- A strategy for an integrated National Rural Sanitation Programme has been developed and reviewed. The strategy is district-based, minimizes the need for GOL incremental inputs, and maximizes the involvement of the private sector in planning, financing, and implementation of the programme.

- GOL will be primarily responsible for the software components of the NRSP, with the possibility of some provision of financing assistance.

- The private sector will be responsible for hardware and construction financing issues.

- Attention was drawn to the extent of the problem of poor sanitation and what needs to be done to overcome the problem.

- A number of desirable hygiene behaviors at the personal and community level were proposed. On the basis of these proposals, a health education programme was outlined, describing what activities and progress has been made thus far, and what remains to be undertaken.

- The VIP latrine technology has been found to be acceptable and building and maintenance standards in the pilot areas are high.

- There is a high level of awareness of the VIP latrine and a significant demand.

- Current designs are financially within the reach of large portion of the rural community, though they may experience difficulties in paying full costs in one payment.

- The health education programme has already had a noticeable impact, but needs further development to ensure its prominence, in the long term, as the most important aspect of National Programme activities.

- The monitoring and evaluation programme is providing useful information for National Programme development. Improved capacity to evaluate behavioral change and health impact would further increase the usefulness of this aspect of the Programme.

- Progress has been made to develop institutional capacity for implemenation of the National Programme. Efforts should now be made to consolidate and complete the institutionalization process, in particular the formation of a Rural Sanitation Coordination Unit in MOH and a Rural Sanitation Technical Development and Training Unit in MOI, and the employment of key national staff by Government.

3. Workshop Findings

The workshop participants endorsed the strategy developed during the pilot phase of the Rural Sanitation Program. It is felt that the strategy will be an effective and feasible means for achieving national program objectives. The following observations and recommendations were made regarding future actions to be taken to get the National Program underway and enhance the effectiveness of the implementation strategy:

1. It is expected that implementation of the National Rural Sanitation Program as proposed in the draft fourth five year development plan will be feasible and affordable by the Government of Lesotho. Government financial and economic resources should accordingly be mobilized to bring the Program underway in all districts by 1990.

2. Donor resources should be mobilized to support most of the capital costs of the National Program during the next five years.

3. Methods for providing credit should be further developed in Mohale's Hoek District, assessed and ultimately incorporated

in all district programs as a means of expanding affordability and coverage in rural communities.

4. Due to the difficulties in providing selective grants to only the poorest population segments, and unaffordability of providing significant grants to the population as a whole, grant options for subsidization should be deferred until other demand is saturated.

5. Attempts should be made to increase coverage by promoting greater use of cheaper materials, reducing the drop-out rate among builders, and stimulating community-level fund-raising and self-help initiatives.

6. Improved means should be sought to measure project impact on behaviour and health.

7. The contribution that can be made by the monitoring and evaluation staff to MOH programs as a whole should be taken advantage of, and efforts made to develop an integrated approach to monitoring and evaluation of all on-site sanitation and related health education programs in Lesotho.

8. Health education messages should be addressed to all sections of the community, particularly parents and community leaders.

9. Communication materials should be distributed widely using all available channels and resources.

10. Until a schools health education program is introduced and implemented, the RSP should organise periodic training programmes for both teachers and school children on a fairly regular basis.

11. The VHW programme of the MOH should be reviewed with the objective of strengthening the ability of VHWs to set targets for accomplishment.

12. Further integration of rural development activities, particularly in the Primary Health Care Sector, should be sought.

13. An accelerated builders training program should be developed to train 2,200 active builders within five years.

14. All 10 districts should be active within four years, and, in order to achieve this, 40 TAs and 40 HAs should be in place within four years.

15. The skills of national Technical Assistants and Health Assistants should be upgraded, to allow them to be promoted

to more senior posts and establish a clear line of authority between staff at the national and district levels.

16. Options for the improvement of latrine designs should be left open, and research into design improvements, particularly with a view to cutting costs, should be a continuous process, in collaboration with other on-site sanitation programs.

17. Latrine construction and component charges should be subject to constant review, and should be periodically revised in keeping with the market situation, and incentives to local builders developed, subject to clearance by the On-site Sanitation Coordinating Committee.

18. Further coordination should be sought between the rural sanitation program and the 13 Towns Project with a view to standardizing approaches to to a variety of aspects of the programs, including training, technical designs, and pricing and subsidization policies.

As noted, these recommendations were compiled from the sets of recommendations made by each of the four discussion groups. These were compiled by the workshop secretariat and adopted during a plenary session prior to the closing ceremony.

PART II

WORKSHOP OBJECTIVES

Welcome to the first Rural Sanitation Project Evaluation Workshop. This is the first of what will be an annual event, at which all those involved in on-site sanitation activities in rural Lesotho will have the opportunity to review progress and discuss programme improvements.

This workshop is particularly important as it marks the end of the three-year pilot Rural Sanitation Project and the official start of the first phase of the National Rural Sanitation Programme. During the next few days, we hope the contributions made at this workshop will help to guide those involved in programme implementation as it moves into a major phase of expansion.

The objectives of this workshop are:-

- To review RSP progress and achievements to date and examine the effectiveness of the current implementation strategy in attaining pilot project objectives;

- To review and discuss the findings of the first field-test of the RSP Plan of Operations for Monitoring and Evaluation;

- To discuss the likely effectiveness on a national scale of the implementation strategy developed in Mohales Hoek district;

- To propose modifications and improvements to the current implementation strategy which may be introduced during the forthcoming period of expansion to a National Rural Sanitation Programme.

This document contains background papers which will assist participants in reviewing progress during the pilot phase of the programme. Overviews are presented of the major components of project activities, and reports are also presented of the results of the first major field-test of the project's Plan of Operations for Monitoring and Evaluation. Participants are urged to study these documents carefully with a view to assisting project staff in the further development of the programme strategy.

A revised version of this document will be produced at the end of the workshop, incorporating the recommendations made, and will constitute an end-of-project internal evaluation report. Once again, welcome to the workshop, and we look forward to your contributions.

WORKSHOP TIMETABLE

The workshop timetable is outlined below. Participants should arrive at the Hotel Mount Maluti, Mohales Hoek, by 7 p.m. on Tuesday, November 25. Registration will take place on arrival and the workshop will begin promptly on Wednesday morning.

TIMETABLE

	Wednesday	Thursday	Friday
8.30-10.00	Opening	Health Education & Training	Report back
10.00-10.30	Coffee	Coffee	Coffee
10.30-11.30	Introduction & Project Overview	Socio-cultural issues, latrine coverage	Plenary: Resolutions & Recommend -ations
11.30-13.00	VIP latrine building programme	Institutional-isation & Management issues	Summing up and closing
13.00-14.00	Lunch	Lunch	Braai lunch & social
14.00-17.30	Field visits	Group discussions	Departure
19.30	Dinner	Dinner	
20.30	Tape/slide shows	Films	

INSTITUTIONAL AND MANAGEMENT ISSUES

Project Background:

The conceptualization of the Rural Sanitation Pilot Project (RSP) emanates from assessments during the past decade of Lesotho's village water supply and rural health care programmes. These assessments indicated the need to adopt an integrative approach to the improvement of water supplies, sanitation and personal/community hygiene in order to achieve significant health impact. The RSP is expected to establish a strategy for an integrative national rural sanitation programme which would complement and strengthen village water supply and health education programmes, and develop a national capacity to implement the programme. In the long term, both the pilot project and national programme are expected to significantly improve the health status of rural communities.

Implementation of the RSP began in October, 1983 with support from the United Nations Development Programme (UNDP), the United Nations Children's Fund (UNICEF), and the United States Agency for International Development (USAID). Execution of external assistance for the Project has been undertaken by the Technology Advisory Group of the World Bank (TAG). The broad development objective for all the donor inputs is to improve the health status of the low-income rural population by improving and expanding rural sanitation infrastructure and related health education services. The immediate objectives and anticipated activities for the various donor inputs are described in the UNDP Project Document and UNICEF Plan of Operations available from the Ministry of Health or from the offices of the respective donor agencies. At the most recent tripartite review of the RSP held in February, 1986 it was agreed that the Project would be terminated at the end of 1986 with GOL intending to concurrently launch the national rural sanitation programme, based on the strategy developed during the pilot project. Accordingly, a detailed section on the national rural sanitation programme has been included in Lesotho's Draft Fourth Five Year Development Plan.

Institutional Development:

Although each of the donor agencies as well as the Government of Lesotho have harbored varying points of view regarding the emphasis which should be applied to various aspects of the project, there is a consensus that the establishment of an institutional framework and identification of associated human resources is of fundamental importance to the establishment of a national rural sanitation programme.

The strategy which has evolved through the RSP calls for a decentralized national programme with the district as the focal point for programme activities. The strategy takes into consideration the availability of resources from the public and private sectors and external agencies with the intention of:

- Minimizing the need for an expanded GOL establishment or physical infrastructure to support the programme.

- Maximizing the active participation of the private sector and beneficiary groups in planning, management and implementation of the programme.

The RSP has been implemented jointly by the Ministry of Health (MOH) and the Ministry of Interior, Chieftainship Affairs and Rural Development (MOI), with MOH as lead Ministry being responsible for project administration, health education and promotion. MOI is undertaking technology development and technical training. It is anticipated that semi-independent district rural sanitation programmes will be established sequentially as GOL and donor resources are identified for the programmes, with all district programmes established by 1990 (cf. Draft Fourth Five Year Development Plan for Lesotho, 1987-1991).

During the RSP a prototypical district rural sanitation programme has been established. It is being implemented by a District Sanitation Team comprising one District Sanitation Coordinator (Senior Health Assistant) and two Health Assistants in the Environmental Health Section of the Ministry of Health, and four Technical Assistants in the Village Water Supply Section of the Ministry of Interior. The team has developed its own work plan and budget and has been operating independently since July this year with diminishing advisory support from the RSP national staff. Two additional District Sanitation Teams are now being formed in Leribe and Butha Buthe Districts, based on the Mohale's Hoek Model, through the Northern Districts Rural Sanitation Project funded by the Overseas Development Administration of the United Kingdom (ODA).

At the national level a core national team has been established with units in the Environmental Health Section of MOH and the Village Water Supply Section of MOI. This team is responsible for:

1. Review and updating of the national programme for rural sanitation.

2. Planning and launching of district sanitation projects.

3. Training of key personnel for district work.

4. Design, production and distribution of promotional and relevant health education materials.

5. Resource mobilization for the support of district work.

6. Liaison with financial intermediaries for the project.

7. Standards setting.

8. Monitoring, evaluation and impact assessment.

9. Quality control.

In order to steer the implementation of the RSP a Rural Sanitation Project Coordinating Committee was formed in November, 1983 and has met at monthly intervals for the duration of the Project. The following agencies are represented on the RSPCC:

RSP management staff, MOH/MOI
Health Planning Unit, MOH
Environmental Health Section, MOH
Health Education Unit, MOH
Village Water Supply Section, MOI
Urban Sanitation Improvement Team (USIT), MOI
Rural Development Planning Unit, MOI
Central Planning and Development Office
UNDP
UNICEF
Bureau of Women's Affairs
ODA-funded Northern Districts Rural Sanitation Project

Recently, the RSPCC has agreed to dissolve and reconvene as the On-site Sanitation Coordinating Committee, a working sub-committee of the National Steering Committee for the IDWSSD, with expanded terms of reference to oversee and coordinate national on-site sanitation improvement efforts. Terms of reference for this committee are attached at the end of this report.

The Rural Sanitation Coordination Unit in MOH comprises the following staff:

Position	Employment Status
Rural Sanitation Coordinator	Expat. (IBRD)
National Counterpart to Coordinator	Vacant post
3 Health Assistants	Daily paid
Social Anthropologist	U. N. Volunteer
2 Research Assistants	Employed by RSP with UNICEF funds
PSC and Training Advisor	Expat. (UNDP)
Counterpart Health Educator for Advisor (part-time)	GOL establishment
Secretary	Daily paid
Driver	Daily paid

In MOI, the Rural Sanitation Technical Development and Training Unit is composed of:

Civil Engineer	GOL establishment
Advisor to Civil Engineer	U. N. Volunteer
4 Technical Assistants	Daily paid

In neither Ministry have the respective Units been formally established, and they do not appear on ministerial organizational charts, but their existence is supported by GOL and deemed essential for the effective implementation of the national rural sanitation programme. There is a clear need to establish these units and the form of the longer term relationship between the two Ministries in the national programme.

A GOL counterpart to the Rural Sanitation Coordinator was in post on the GOL establishment at the beginning of the RSP, but he was transferred to another position at the end of 1985. Since that time a replacement counterpart has been identified, but has yet to be employed by GOL, although a vacant establishment post is available. An effort should be made to expedite the employment of the new counterpart in order shorten the length of time for which international advisory assistance will be required for this post.

Two Research Assistants have been employed directly by the RSP with UNICEF funds in order to support the sociocultural and health education components of the Project. It is anticipated that one of the RAs will be employed in the Health Education Unit in order to assist with the development of project support communications materials and approaches, and to monitor their effectiveness. The other RA is expected to be located in the proposed Health Research and Evaluation Unit in order to continue monitoring and evaluation activities for the national programme. As yet neither RA has been employed by GOL, although efforts are being made to do so.

The four Technical Assistants in the Technical Development and Training Unit are responsible for training of Technical Assistants for district teams and assisting with technology development. Their responsibilities exceed those normally given to Technical Assistants in VWSS, and consideration should be given to raising the position of these national team members to daily paid Techical Officers. All of the Health Assistants on the national team are employed on a daily paid basis, and the Health Assistants on the district sanitation team are still paid a student stipend. Some of these staff have been employed in this fashion for six years. All of these HAs should be placed on existing established government posts for Health Assistants.

Beginning in March, 1986 supplementary technical assistance was provided to the RSP through UNDP interregional project INT/83/003 (PROWESS) to strengthen the health education and social marketing component of the Project and to enhance the involvement of women. In addition to other inputs, a Participatory Training and Communications Support Advisor was provided through PROWESS with the understanding that a counterpart in the Health Education Unit would be provided by GOL who would work closely with the Advisor and thereby obtain on-the-job training. A counterpart has been assigned on a part-time basis who is also working with a related project. This has not proved to be an effective arraangement due to the large volume of work to which the counterpart is committed on the other project. MOH should seek to identify a full-time counterpart to the Advisor to ensure that skills and knowledge will be effectively transferred to national staff.

Within MOI, USIT has been developing a strategy for on-site sanitation in the 13 towns of Lesotho concurrently with the RSP's rural strategy development. The urban and rural strategy are very similar in most respects, and efforts have been made to consolidate some aspects of the two projects. Standardized component designs have been adopted by both projects, and a common crdit scheme for both urban and rural areas to be operated through Lesotho Bank is being developed. Efforts should continue to further consolidate these two programmes, and consideration should be given to the possibility of establishing one common on-site sanitation programme in districts excludng the Maseru urbn area in order to avoid replication of efforts and streamline utilization of limited GOL resources.

Staff training and fellowships:

A variety of types of formal and non-formal training have been undertaken for project national staff at all levels. Emphasis has been given to in-service training and in-country workshops and courses in order to maximize the number of participants who may participate in the training and to increase the probability that the training is contextually appropriate. These local training activities are described in the Health Education and Technical sections of this document.

In a few cases staff required specialized skills or knowledge which could most effectively be acquired through regional study tours or overseas training. These training activities are outlined below.

Date	Training Desription	Participant	Funding
2/84	Study tour of Botswana's rural and urban low-cost	RSP and USIT mgmt staff	UNDP
11/84	Financial and Economic Planning for W. S. and San. Projects	RSP coordi-nator's C'part.	UNICEF
4-7/85	Diploma course in community W. S. and Sanitation, Loughborough, U. K.	RSP coordi-nator's C'part.	British Council
3/85	WEDC Conference on W. S. and San. for Developing Countries	RSP coordi-nator's C'part.	UNDP
9/86 -	Diploma course in Health Education, Leeds Polytechnic	Research Ass't. Health Ass't.	British Council

Summary:

The process of institutionalization for the national rural sanitation programme which began during the implementation of the RSP is incomplete, but substantial progress has been made. One district sanitation team has been formed and is implementing a district rural sanitation programme with minimal central support. The nucleus of coordination and training units have been formed in MOH and MOI and, with the exception of three key posts, staff

and office accomodation provided. A detailed section on the national rural sanitation programme has been included in the Draft Fourth Five Year Development Plan. Finally, an On-site Sanitation Coordinating Committee has been formed to steer the national programme. The major unresolved issues at this point are:

1. Employment of a national Rural Sanitation Coordinator in an existing post for a Senior Health Inspector.

2. Employment of one Research Assistant in an existing post in the Health Education Unit.

3. Creation of a post for a second Research Assistant.

4. Formal establishment of institutional entities in MOH and MOI.

5. Employment in existing establishment posts of Health Assistants assigned to national and district rural sanitation teams.

6. Upgrading of national team Technical Assistants to Technical Officers in accordance with the level of responsibility given to them.

7. Provision of GOL budgetary allocations for rural sanitation in accordance with the Draft Fourth Five Year Development Plan.

8. Further consolidation of urban and rural on-site sanitation programmes in areas outside of Maseru.

Financing:

Pilot Project Financing

Funding for the RSP has been contributed from three donor agencies and the Lesotho Government. A summary analysis of financial inputs is portrayed below:

nding agency	Original contribution, 1983	Present contribution, 1986	Approximate amount spent up to 9/86	Balance
DP:				
LES/82/007	$352,000	$419,780	$382,302	$37,478
INT/83/003	$96,000 (1986)	$96,000	$42,000	$54,000
ICEF	$422,600	$455,000	$411,200	$43,800
AID	$100,000	$100,000	$12,229	$87,771
L (in kind)	M157,800	M157,800		

UNDP Assistance:

Funds provided through project LES/82/007 (Assistance to Pilot Rural Sanitation Project) are primarily for technical advisory assistance and it is anticipated that expenditures will meet budget projections through the end of the project.

Support from INT/83/003, provided from March, 1986, includes external advisory assistance for health education/promotion, funding for a local post of Women's Liaison Advisor and development and production of PSC materials. It has not been possible to identify a candidate for the local post, and large scale production of PSC materials has only recently begun. Hence, this budget has been underspent thus far. It is anticipated that expenditure on PSC materials production and training will increase considerably during the first quarter of 1987 with the cessation of UNICEF funding for similar purposes and increasing rates of PSC materials production.

UNICEF Assistance:

UNICEF has provided funding for transport, local training, building materials and equipment, wages and salaries for local staff, and development and production of PSC materials. Underexpenditure has occurred on a number of line items for the following reasons:

Building materials for demonstration latrines - It was originally anticipated that all latrines constructed by the RSP would be 100% subsidized by the project and funds were budgetted accordingly. However, the strategy developed by the RSP involves significant cost recovery in order to make the project replicable nationally. Beneficiaries are expected to pay the full cost of construction materials and labor for latrine construction, or obtain a low interest loan for this purpose. Hence, only a small portion of the funds allocated for building materials has been spent.

Production of PSC materials - Although production of PSC materials was called for in UNICEF's Plan of Operations, no advisory support was provided for the development of materials, and qualified national staff were not available for this purpose. With the arrival of advisory support through UNDP Project INT/83/003 a variety of PSC materials have been developed and it is expected that expenditures for production during the final quarter of 1986 will meet budgeted ammounts.

Wages for Technical Officers, vehicle operation costs - UNICEF has agreed to pay GOL for these expenses on a reimbursement basis, but no claims have been made since 1984. Hence, an unnecessary underexpenditure has occured for these line items.

USAID assistance:

USAID's contribution to the RSP was initially for the sole purpose of providing building materials for demonstration latrine construction. For the same reasons outlined under the UNICEF contribuiton above, only a small portion of these funds have been

spent thus far. USAID has recently agreed to allow the remaining funds to be spent for local training and other activities in support of district sanitation programmes.

Summary:

It is anticipated that substantial funds will be unspent at the end of the pilot project in December, primarily from the UNICEF and USAID contributions to the RSP. These residual funds could be used to support additional district sanitation programmes during the early implementation of the national rural sanitation programme. Sufficient equipment from the RSP is available to support one additional district programme. This equipment combined with the USAID funds which are available for training and other purposes would allow implementation of a programme for Quthing or Qacha's Nek Districts. GOL should consider allocation of staff and administrative support for one new district sanitation team in order to launch an additional district programme by the second quarter of 1987.

Financing of latrine construction

As mentioned briefly in the above section, the present strategy for the national rural sanitation programme requires rural householders to pay the full cost of materials and labor for latrine construction. These costs range between M100.00 and M200.00 for a single pit VIP latrine and M175.00 to M400.00 for a permanent double pit VIP latrine. GOL provides training, health education and social marketing inputs to the programme.

An analysis of the financial and economic implications of the RSP strategy for the national programme in both the public and private sectors was undertaken by a consultant, Mr. James Baker, with funding from USAID in November, 1985. Among other conclusions, the analysis estimated that 45% of rural households would be able to afford latrine construction with no outside financial assistance. 30% would require access to loans, another 15% would need up to a 50% subsidy, and a final 10% would only be able to build if a 100% subsidy were provided.

In November, 1984 development began of a scheme to provide credit for latrine construction to low-income families through the credit unions of the Lesotho Cooperative Credit Union League (LCCUL). A total of 64 credit unions belong to the LCCUL, of which LCCUL management estimates perhaps 40 are sufficiently well managed to administer loans for latrine construction. In the scheme being tested by the RSP, funds provided by a donor agency are contributed to LCCUL who in turn loan the funds to specified credit unions for the express purpose of loans to member households for VIP latrine construction. The loans are made in kind by the credit unions. That is, eligible members of the credit union are provided with materials and builders services for which they pay the credit union in installments. Members pay interest at the rate of 1% on outstanding balance per month for VIP construction loans.

This scheme has been undergoing testing at Elelloang Credit Union in Mpharane since February, 1986. An initial loan of M5000.00 was

made to Elelloang, all of which was used to provide loans in kind to 43 credit union members. By October, M1072.98 had been repaid by the members, and M478.00 was re-loaned to two additional members for latrine construction, making a total of 45 households who have benefited from the scheme so far. The credit union manager estimates that it will be possible to provide two additional latrine loans every month as repayments come in.

Although record keeping at Elelloang is less than adequate, it does appear that loans are being repaid in perhaps 90% of the cases and that funds are revolving in the manner desired. Accurate records are kept of the total amount loaned to each member and the total amount repaid, but inconsistent information is available about the schedule of payments agreed to, or the duration of the loan. In any case, LCCUL regulations stipulate that the maximum length of any loan is eighteen months. Many households seem to have fluctuations in ability to pay and consequently my repay the entire loan in one lump sum toward the end of the loan period, or sporadically over three to eighteen months.

The limited experience to date with the LCCUL loan system indicates that:

1. An improved record keeping system should be devised and its use enforced as a condition of future loans to credit unions.

2. A loan of M10-15,000 would be manageable by many credit unions and would allow a more rapid impact on the credit union's membership than M5000 as was ititially tried. The increased sum would allow 80 - 120 latrines to be immediately constructed with 4 - 6 latrines being added every month.

3. Although the LCCUL scheme seems to be a workable system for providing loans for latrine construction, its impact is limited to those rural households with at least one credit union member.

In order to provide wider access to loans for latrine construction a second credit scheme is being developed which would operate through the Lesotho Bank. Eligibility for loans would be based solely on credit-worthiness criteria as determined by village development committees in collaboration with district sanitation teams, and would not be dependent on membership in a credit union or even possessing an account at Lesotho Bank. In selected communities a credit manager will be identified who will sit on a monthly or weekly basis with the village development committee to screen applicants for latrine construction loans. Successful applicants will then be provided by the credit manager with bond form from the Lesotho Bank which will indicate the size, purpose (whether for materials and/or labor) and duration of the loan. The applicant will then be given credit vouchers for the value and purposes which he has requested. These vouchers may then be used in lieu of cash to pay the suppliers of materials and/or labor for latrine construction. The vouchers may then be cashed by the suppliers at Lesotho Bank or, possibly, at larger local stores. The latrine owner will then repay the loan in installments through the credit manager or directly to the nearest Lesotho Bank agency. Seed money for these loans will be deposited with Lesotho Bank and

administration and tracking of the loans will be managed using Lesotho Bank's computer facilities. A diagram portraying the manner in which the Lesotho Bank credit scheme would function is attached at the end of this report.

Although the administrative mechanisms for this scheme have been developed with Lesotho Bank, it is not yet operational. Field testing in one pilot area is expected to begin in the first half of 1987.

Donor commitments to district rural sanitation programmes

During the latter half of the pilot phase increasing attention has been given to identifying donor support for district rural sanitation programmes. Outlined below are levels of commitment or interest expressed by donor agencies in these programmes thus far:

ODA: The ODA have committed U. K. £ for a rural sanitation project of three year's duration for Leribe, Butha Buthe, and Mokhotlong Districts. Implementation of the project in Leribe and Butha Buthe Districts began in March, 1986 with the arrival of a Technical Cooperation Officer for the project.

UNICEF: UNICEF have agreed in principle to continue funding for rural sanitation activities in Mohale's Hoek District pending the receipt of an official request from GOL.

Government of Ireland: The Irish Government have agreed in principle to fund district programmes in Thaba Tseka and Berea Districts beginning in July, 1987. A formal proposal and revised budget for 1987 have been submitted by CPDC to the Irish Consul General and forwarded to Dublin.

Canadian International Development Agency (CIDA): CIDA have indicated their intent to fund up to two district rural sanitation programmes as a component of proposed CIDA inputs to village water supply beginning in 1988.

At present, four districts have confirmed funding, and indications of intent have been given to provide funding for four additional districts. Consideration should be given to establishing one district programme with residual funds and equipment from the pilot phase as described earlier, leaving one district for which funding must be sought.

Support to related projects

A number of rural development projects have identified the need for low-cost sanitation components in their design, and the RSP has been providing advisory support when requested to do so. Outlined below are some of the activities for which support has been provided:

CARE: CARE have recently launched a sanitation programme to encourage latrine construction in the catchment areas of CARE wool spinning cooperatives. RSP has lent advisory support in the design of the programme and is providing technical training for local builders at selected catchment areas.

Plenty: Plenty, a Canada-based NGO, will soon be implementing a major integrated rural development project in the Quthing and Sebapala River Valleys in Quthing District which includes a low-cost sanitation component. Plenty have expressed a desire to work in close coordination with the national rural sanitation programme strategy and in accordance with GOL policies in this sector. The National Rural Sanitation Programme will provide Advisory support to Plenty in the design of an implementation strategy for sanitaiton component of their project, and Plenty will be represented on the On-site Sanitation Coordinating Committee.

Women In Development: This UNICEF-funded project has recently begun training women's groups to construct VIP latrines on a self-help basis. RSP technical staff are providing construction materials and training support initially for four courses.

It can be anticipated that support to, and coordination of district programmes with, the low-cost sanitation efforts of NGOs and integrated rural development projects will form a small but significant component of national programme activities. These projects may augment the impact and rate of implementation of district programmes.

TECHNICAL ISSUES

Background:

Development of the technical component of the RSP focussed primarily on two issues:

- Determination of the most appropriate type and design of latrine for rural Lesotho, taking into consideration financial, economic, socio-cultural and environmental factors.

- Establishing the most effective means for constructing the latrine type of choice on a large scale at rural households at minimal cost.

Physical targets for the RSP were initially set at 400 latrines in the UNDP Project Document. The UNICEF Plan of Action later increased the target to 400 latrines plus provision of 400 kits for upgrading latrines.

It was quickly established that the latrine type of choice for rural Lesotho at this point in time is the Ventilated Improved Pit Latrine, or VIP. VIPs had been adopted with good results on low-cost housing projects in Maseru and in both rual and urban areas in several regional African states. A variety of VIP designs were then investigated in order to identify the designs most suitable for large scale production. A small but successful VIP construction programme was being implemented at the Maluti SDA Hospital in Mapoteng based on a set of ferro-cement slabs cast in locally produced fibreglass molds with a pitch/fibre vent pipe. These basic components were initially adopted by the RSP, and the first demonstration latrines were constructed at Village Health Worker training courses in Mpharane and Liphiring in February, 1984. It was soon determined that the ferrocement slabs required too high a level of quality control and that the fiberglass molds were too fragile for the decentralized type of production envisaged for the RSP. A simplified set of reinforced concrete components were then developed.

Analysis of VIP designs culminated in a planning workshop held in Mohale's Hoek in July, 1984. Eight different VIP designs were constructed and critically reviewed by a broad cross section of representatives from rural communities, Government and donor agencies. The consensus indicated a general acceptance of the VIP type and preference for both single and double VIPs with doors and flat wooden or conical concrete seats.

As implementation proceeded it became apparent that RSP and USIT VIP designs and general programme strategies were converging, and that standardization of basic latrine components would allow further consolidation of the programmes and simplify promotion and training. RSP and USIT technical teams collaborated to develop the simplified standard set of VIP components which are being used in both rural and urban areas today.

At the outset of the RSP it was made apparent that a construction

system involving large subsidies (ie. - free components or government-subsidized labor) or highly centralized production (government-produced components or prefab latrines) would not be affordable by GOL, given its limited financial and economic resources. Hence, options for maximizing the involvement of the private sector were considered, and upgrading the skills of existing rural builders and artisans settled upon as the most realistic option. A comprehensive, applied two-week VIP construction course was developed, during which an average of 20 builders learn to construct single and double pit VIPs using a variety of locally available materials. The first courses were held at Mpharane and Liphiring in September/October, 1984. A summary of all builder training courses held to date is outlined below:

SUMMARY OF LOCAL LATRINE BUILDERS COURSES
CONDUCTED BY RSP DISTRICT AND NATIONAL TEAMS

Area	Date	# Trainees	# Demo. Latrines	Approximate # of presently active builders
Liphiring	9/84	17	4	15
Mpharane	10/84	21	4	6
Likueneng	5/85	20	4	3
Maphutseng	6/85	20	6	9
Phamong	3/86	22	4	6
Ketane	7/86	24	6	22
Lithipeng	9/86	22	4	?
Holy Cross	11/86	ongoing course		
FTC, M/Hoek	2/85	20 HAs	4	N/A
Matsieng	10/85	16 HAs, 17 Bldrs.	5	?

The low activity rates among trained builders which has occurred following most of the earlier courses was surmised to have been due to inadequate screening of candidate trainees. For the first courses Village Development Committees were requested to select trainees according to specified criteria with only informational inputs from RSP staff. The screening process has become increasingly stringent in subsequent courses, seeking to identify motivated, un- or under-employed trainees with a modicum of construction skill or interest. Other factors may also affect builder activity, such as entrepreneurial ability, profit incentives and availability of alternative employment, among others. A more thorough analysis of this aspect of the RSP will be found in the latrine builders survey following in this document. In an effort to provide additional incentives for active builders

the RSP has begun providing tool kits to active builders who have completed twenty or more latrines. Although it is too early to say definitively, this appears to have had a positive impact on some trainees.

Effective demand for VIPs appears to be consistently high in all areas as demonstrated by VIP component purchases and requests for assistance, although cost is a constraining (but not a preventive) factor for lower income groups. RSP has sought to control labor prices for latrine construction with contractual agreements between village leadership and trained builders which stipulate ceiling prices based on Government rates for skilled and unskilled labor. Presently, ceiling labor prices are between M60.00 and M80.00 for single pit VIPs and M90.00 to M120.00 for double pits.

Latrine components for VIPs are sold at cost through rural clinics or other Government offices. Reinforced concrete component kits were initially produced and transported to clinics by RSP staff at the regional VWSS yard. It was immediately apparent that this was not a viable option for any expanded programme. Arrangements were then made with the district prison to produce components. It was found that the prison could produce high quality components at low overhead costs and with a high degree of flexibility with regard to volume of production. However, transport of components from the prison to clinics and onward to individual houses was costly and still caused logistical bottlenecks. Hence, efforts were made to further decentralize component production. Local concrete block producers were trained to produce and market latrine components with some success. However, most householders were still unable to transport the heavy slabs to their homes and were dependent on producers for transport. This added to the cost of components, and if transport was unavailable RSP vehicles were expected to fill the gap. The latrine components now being used by both the RSP and GSIT are designed to be cast on site in order to alleviate most transport constraints. A kit of reinforcing steel and a vent pipe can be carried by hand to a rural household, and slabe casting has been incorporated in the builder training syllabus.

Technical Training of Trainers

During the latter portion of the RSP district sanitation teams were formed in three districts and the technical unit undertook the training of the TAs for these teams. In Mohale's Hoek the TAs were given on-the-job and classroom training primarily by the RSP Civil Engineer and his UNV Advisor. In Leribe and Butha Buthe the Civil Engineer assisted the TCO for the Northern Districts RSP to identify eight TAs and national team TAs then undertook on-the-job training of these staff. A detailed syllabus for technical training of trainers has yet to be developed, and clarification is required regarding the relative roles and the relationship between district and national TAs.

Summary

- The technical component has been successful in achieving its physical targets. Approximately 600 VIPs have been completed, and well over 200 additonal kits for components have been distributed. Upgrading of existing rural latrines was

evaluated and found to be feasible but not cost effective.

2. A total of 163 local latrine builders and 36 HAs have been trained by the RSP and the Mohale's Hoek District Sanitation Team to build VIP latrines. Activity rates among the builders trained in most of the early pilot sites is low, and may be attributed to insufficient screening of candidate trainees and other factors. Tool kits are now being provided to builders who complete 20 or more latrines as an incentive with some success. In the most recent training courses high initial rates of builder activity have been achieved by careful screening of candidates, intensive promotion and component sales before and during the course, and active marketing of builders' services by extension workers immediately after the course.

3. The Rural Sanitation Technical Development and Training Unit has been involved in the training of TAs for three District Sanitation Teams. A detailed training syllabus for DSTs needs to be developed, and the relationship between DSTs and national team staff clarified to ensure smooth, effective and rapid training of the remining DSTs.

4. A single and double pit VIP designs which use one standard set of reinforced concrete latrine components are now being used by both the rural and urban sanitation programmes. Components are cast on site using a kit of reinforcing steel and pitch/fiber vent pipe which is sold for M16.00 - M19.00. Builders labor fees for latrine construction range between M60.00 and M80.00 for single pits and M90.00 to M120.00 for double pits.

VIP LATRINE CONSTRUCTION PROGRAMME

1. Introduction

The VIP latrine construction programme developed in Mohales Hoek district is based on the principle of community self-help, with latrines being both built and paid for by rural people, using their own skills and resources.

Local people are trained by the project's technical unit in VIP construction, at two-week training courses held at village sites. On completion of training, local latrine builders (LLBs) are available for hire and build VIPs as an income-earning activity. In order to keep labour costs to a reasonable level, LLBs are asked to sign contracts with the community (through the Village Development Committee) by which they agree to adhere to agreed charges for the various aspects of latrine construction. As the LLB evaluation exercise showed (see next document) these agreements have been almost universally honoured. Very few builders have attempted to charge more than the agreed rates.

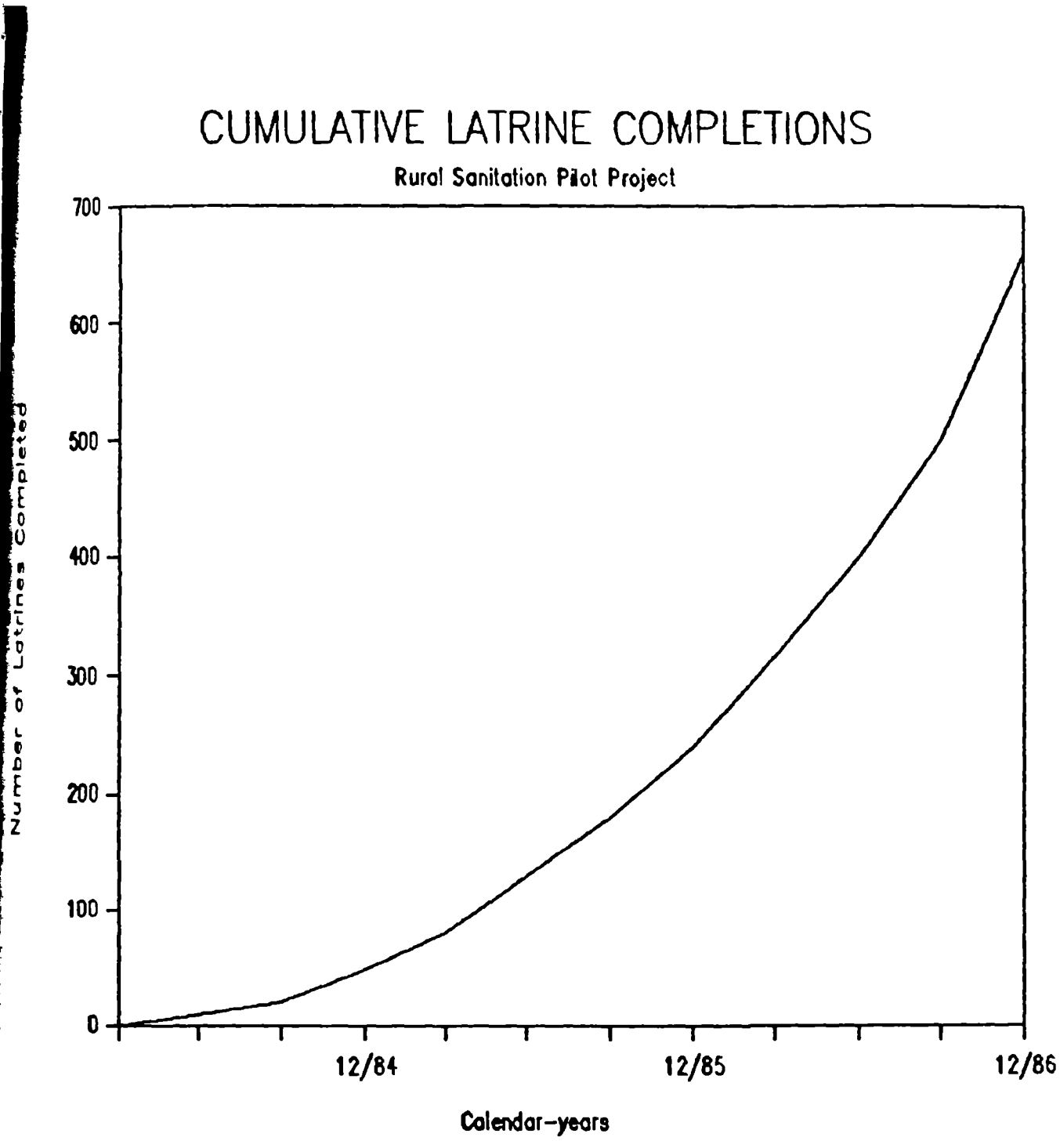
The project assists households by making a basic kit, consisting of a vent pipe, flyscreen, and a bundle of steel reinforcing rods, available at project sites at cost price. Householders are responsible for procuring all other materials themselves.

Technical staff are available at project sites after the completion of training courses in order to give on-site supervision to newly-trained builders until they are fully competent to work alone. Technical back-up also includes the monitoring of standards, and the ironing out of any technical problems which may arise during the building of a latrine.

2. The Construction Programme

The following graph shows the rate of progress achieved in the construction programme during the three-year life of the project. As the graph shows, progress was very modest during the first two years of RSP activities, with a major upswing during the course of 1986.

During the course of 1984, very few latrines were built. During this period, the technical unit was being recruited and trained, and design and prototype construction work was undertaken. A planning workshop was also held, to which representatives of rural communities were invited to review designs. The first builders training courses were held towards the end of the year.



During 1985, the building programme began to pick up momentum in the first two pilot sites, and two further sites were brought on-stream by the end of the year. At the end of 1985, approximately 250 latrines had been built.

The final year, 1986, saw a major upswing in the building curve, as demand picked up momentum in the early sites, and two further sites became active. The introduction of credit at Mpharane also had a noticeable effect on demand at this site. The initial project target of 400 latrines was reached, ahead of schedule, by mid-1986. The target is expected to be exceeded by a factor of 50% by the end of the year, with approximately 600

latrines being built by the beginning of December.

At early project sites, a significant time delay was experienced between the completion of builders training courses and the pick-up of demand for latrines. During 1986, however, modifications have been made to the implementation strategy, allowing more time for initial promotion and demand creation at new sites, and this appears to have successfully reduced this period of delay. As the programme develops we expect that the activation of new project sites will have an almost immediate impact on the construction curve.

A wide range of materials options are available to the rural population, although basic designs are standardized. A major choice is offered in that a household can build either a single pit VIP (which will require relocation when the pit is full), or a permanent double-pit model (which requires that pits be emptied from time to time). Although the single-pit model has been favoured by most households, a significant number of double-pits have also been built. According to current figures, double-pit latrines represent approximately 20% of those built to date.

3. Latrine Costs

As noted, the rural population is expected to meet the full costs of building its own latrines, both in respect of materials and payments to LLBs. During the course of the pilot phase latrine costs have risen slightly, largely due to inflation in the regional economy and the consequent impact this had on materials costs. Labour costs have remained fairly stable, with modest increases being agreed in the latter half of 1986 (see following document).

Attempts have been made in the design process to keep costs as low as possible. Current figures show a mean cost for a single-pit latrine of M.182.00, with double-pit latrines costing on average M.297.00. These costs, though significant, are reasonable (both in the eyes of the project, and among those who have built latrines) and are very competitive when compared with the often more expensive and less well-constructed commercially available options.

The rate of construction and latrine costs are briefly summarised here. More detailed information about various aspects of the building programme is contained in the following reports.

EVALUATION SURVEY #1
LOCAL LATRINE BUILDERS

1. Introduction

Local latrine builders (LLBs) play a crucial role in project implementation in the field. With the exception of a limited number of demonstration units, LLBs have been responsible for the construction of all VIP latrines build under the auspices of the project.

In the long term, the existing cadre of LLBs, and their successors, will be the primary agents ensuring the continuation of the VIP building programme as the intensity of involvement by project staff is reduced.

A central objective of the RSP implementation strategy is to pass on the skills required to build VIP latrines to local communities, and to add these to the existing repertoire of construction skills already present in the rural areas. In this way, long term dependence on government or external agencies for the provision of technical expertise will be avoided and, hopefully, VIP latrine construction skills will be absorbed into the local material culture in a self-sustaining way.

Eventually, there should be no further need for government training inputs for the further development of this cadre. Latrine building, like house building and other technical skills, will be absorbed into the culture and transmitted through apprenticeship relationships between existing LLBs and their successors.

This is clearly a long-term goal. Cadres of LLBs will have to be trained in all districts, and in significant numbers, before the cultural absorbtion of the required skills is of a sufficient level to withdraw further training inputs. Provided that VIP latrines continue to be in demand, however, the current RSP strategy seeks to achieve this aim.

In the meantime, it is clearly important that the success (or otherwise) of the LLB programme be carefully monitored and reviewed. To this end, special provision is made for this in the Plan of Operations for Monitoring and Evaluation.

Routine monitoring of latrine construction includes a constant check on building standards and quality of workmanship. So far, results have been positive. In addition, it was considered necessary to look more closely, on an annual basis, at the LLB programme and to evaluate the situation of LLBs and their relationships with both the RSP and client communities.

Preliminary testing of an evaluation method was undertaken at Liphiring and Mpharane during 1985. On the basis of the results obtained, an improved version has been developed and was implemented at pilot sites 1-4 (Liphiring, Mpharane, Likoeneng, and Maphutseng) in July of 1986. The results of this exercise are summarized below.

2. The Evaluation Method

Evaluation data was collected by two principal means. First, a formal interview schedule was used to obtain information from builders on an individual basis. Questions were designed to review the status of builders in terms of age, gender, standard of education, and occupation. Technical problems, and others bearing on builder/client relations, were reviewed, and levels of satisfaction with the training and general support offered by the RSP were investigated. Questions on work patterns, payment systems, levels of income, and satisfaction with pay, were also included.

A copy of the interview schedule is appended to the revised version of the Plan of Operations for Monitoring and Evaluation.

In addition to the formal interview, LLBs were also invited to participate in an open discussion, with project staff, in which the issues raised in the interviews were more broadly discussed and progress during the year generally reviewed. These discussions proved to be an extremely useful adjunct to the formal data gathering exercise. The builders clearly appreciated the opportunity to discuss their problems, and much flesh was added to the bare bones of the data recorded on the interview forms.

LLB evaluation exercises were carried out as follows :-

Site	Date	No. of LLBs
Maphutseng	15 July	10
Likoeneng	16 July	3
Mpharane	17 July	4
Liphiring	18 July	10
	Total	27

3. The Interviewees

Of the 28 builders interviewed, 26 were men and two were women. Neither of the women were active builders. Indeed, although a significant number of women have been trained at all project sites, none have become regular latrine builders. This issue is discussed in more detail in a later section.

BUILDERS BY STANDARD OF EDUCATION

Standard	No.	%.
None	5	17.9
Standard 1-2	4	14.3
Standard 3-4	12	42.9
Standard 5-7	6	21.4
Form 1-3	1	3.6
Total	28	100.0

Standards of education among builders were generally low. Five had never attended school, and most (22) had not gone beyond elementary school. Only seven (25.0%) had completed more than four years of elementary education, the level used in our evaluation surveys to establish basic literacy in Sesotho. Figures from the health education survey suggest that 34.2% of household heads are literate by this reckoning. Thus, the builders interviewed appear to be somewhat less well-educated than the rural male population as a whole.

Builders described their occupations as follows: House builders (10); Latrine builders (8); Miners (4); Farmers (3); Roofer (1); Housewives (2). Nineteen builders reported previous occupations before engaging in latrine construction. Nine said they were builders, five were miners, two were ploughman, one was a watchman, two were labourers.

The most sought-after occupation of physically active rural men is mine work, and the data on occupational status collected from the local builders suggests that they may represent the cadre of rural men who, although physically fit, are unable (or unwilling) to obtain work in the mines. This may relate to their generally low levels of formal educational achievement, or may simply be a

consequence of the increasing difficulties in obtaining work outside of the country. On a national basis, the local latrine builders programme may thus have the potential to alleviate, to at least a modest degree, the increasing problem of rural unemployment which is becoming a disturbing feature in Lesotho.

Five builders interviewed were trained in 1984, 18 in 1985, four in 1986 (these four have not been formally trained, but have received in-service training in the field).

4.Building patterns

Of the builders interviewed, four had built no latrines since training, 12 had built less than 10, seven had built between 10 and 20, and five had built more than 20.

Only three builders had built their own latrine. This was a disappointing finding given the obvious promotional value for builders of constructing latrines for themselves.

Builders were asked how long it normally takes them to build, on the one hand, a single-pit VIP and, on the other, a double-pit VIP. Single pit latrines take 3-5 days to complete (17 builders). Four builders claimed to be able to finish a single in two days (though this reckoning may not include pit excavation). Two said they take about seven days, and one 14 days. The mean number of days reported for a single was four.

A double pit latrine appears to take anything from 3-14 days to complete (though again the shorter time may have been due to discounting of excavation time). Five out of nine builders said a double pit takes 6-10 days. The mean number of days reported was seven.

No latrine appears to take more than 14 days to complete.

Most builders (13, or 54%) work with a partner. Five work alone, five work with two partners, one with three partners.

There appears to be no significant statistical correlation between the number of men in a team and the time it takes to complete a latrine, though the data suggests that a two-man team is the most effective (11 out of 13 two-man operators said they finish a single pit latrine in four days or less).

Given the reported time periods required for each type of latrine, a fully employed builder should be able to complete a minimum of four single-pit latrines in a month, or two to three doubles. None of the builders we interviewed had succeeded in achieving this level of completion, even though a significant number described themselves as full-time latrine builders.

5. Earnings and payments

Builders were asked questions about the payments they receive from clients, how they are paid, how much they charge, and whether they make use of the contracts prepared by the project.

Twelve builders say they get paid in installments, nine say they get all their pay at the end of the job. Only one builder demands full payment in advance. This latter builder formerly collected payment at the end of the job, but changed his approach after difficulties with a particular client who refused to pay.

Eight builders use contracts when dealing with householders, 16 said they do not. Contracts are used as follows: Liphiring, 5/10; Mpharane, 0/4; Likoeneng, 1/4; Maphutseng, 2/10. Only one contract user was unsatisfied, saying that the charge for double pit was too low. During discussions several builders who were non-contract users said they were interested in using them in future as they would help to avoid misunderstandings with clients.

At the time of the interviews, the recommended charges, established by the RSP, were M.60.00 for a single and M.80.00 for a double. These recommendations are difficult to enforce, but it appears that builders have complied with them to a very widespread degree. Only one builder reported charging more than the recommended amount for single pit latrines (asking M.70 instead of M.60). No builders reported over-charging for double pit latrines.

None of the builders reported charging different amounts according to the materials used. In discussion, however, most builders felt that they should be allowed to charge more when more labour intensive materials (especially stone) were used. This issue is discussed in more detail below.

Eight builders were able to give an estimate of their monthly income from latrine building, with a low of M.60 and a high of M.300. The mean monthly income reported was M.157.50. This figure approximates to the estimated mean monthly household income in rural Lesotho and indicates that latrine building is thus a viable option for full-time employment in the rural areas.

6. Satisfaction with pay

Although builders appear to comply with the charges recommended by the RSP, we were interested in examining in more detail the extent to which they felt satisfied with the amounts they receive. Eight builders (32%) said they were satisfied with the pay they receive, 17 (68%) said they were not.

Of those who were dissatisfied, two were satisfied with the

current rate for singles (M.60), four suggested it should rise to M.70, while eight wanted M.80 for a single. Only two wanted more than M.80 for a single (one wanting M.90, and the other M.125).

The current price for doubles is M.80. Five wanted M.90, four wanted M.100, four wanted M.120, two wanted M.160 (on the grounds that a single should be M.80, a double M.160), one wanted M.220. Thirteen out of 16 would be satisfied with M.120 or less for doubles.

In view of the fact that recommended charges have remained static for the past two years, the requested increases appear to be reasonable. Soon after the builders evaluation exercise was completed, charges were in fact revised, using the builders' suggestions as a guideline.

Currently recommended labour charges are now M.70.00 for single pit latrines and 95.00 for doubles. Where latrines are built with stone, charges have been increased to M.80.00 for singles and M.110.00 for doubles. These latter charges take account of the increased labour input required to work with this material. Although labour charges for stone latrines are higher than for others, overall costs remain low due to the availability of stone at little or no cost.

Initial indications are that these increased charges are acceptable, both to builders and clients.

7.Builder/client relations

Generally speaking, relations between builders and their clients appear to be good. Several builders reported encountering difficulties of some kind or another, but most had been satisfactorily resolved through negotiation, sometimes with the assistance of RSP field staff acting as mediators.

Five out of nineteen builders said they had received complaints from householders. Four out of five thought that the complaints were fair, and where possible they had taken appropriate action to satisfy the client. One householder complained that the builder wanted too many materials and this was thought to be unfair.

As noted above, several of the builders who had not been making use of the RSP contracts felt that many of their problems could by averted if they used these contracts in future

8.Training/course content/manual

According to monthly monitoring returns, standards of latrine construction are very high, with most latrines built by local builders fully conforming to RSP specifications. This generally

indicates that the training and supervision offered by the RSP is of a satisfactory quality. During the evaluation interviews, however, we sought the builders views of the quality of training and supervision they receive as a check against our own findings.

Seven builders reported gaps in their knowledge, as follows: uncertainty about pit dimensions (2); ignorance of double pit construction (2); ignorance of how to build with burlap (1); ignorance of latrine dimensions (1); ignorance of use of square (1).

Fourteen builders have a copy of the manual, as follows: Liphiring, 3/10; Mpharane, 1/4; Likoeneng, 4/4; Maphutseng, 6/10. All those who had the manual said it was useful. One said it should include more plans, another said it should be updated with the new designs. It should be noted, however, that given the education st ndards of the builders, it is unlikely that many can read it very well, if at all. A revised version of the manual, with a simplified text and clearer illustrations, as well as a reminder card reviewing the essential features of latrine construction, has now been prepared and is currently being field-tested.

All of the builders appeared to be satisfied with the training they had received, 19 describing it as "very useful" and eight as "useful". Twenty-one said they thought the lectures in the course were useful, two saying they were not.

Twenty-three builders said they were satisfied with the help they receive from the RSP. Only one expressed dissatisfaction, requesting that the RSP staff should collect fees from householders and then pass them on to the builders.

During the course of conducting the builder interviews and meetings, it was clear that morale among local latrine builders was generally very high, and that their relationships with RSP field staff were cordial and productive. The high level of identification of local builders with the project was apparent from their attitude towards field staff and interviewers and, in more concrete terms, their previously noted conformity to RSP charges and standards of construction.

The maintenance of good social relations between the RSP and local builders is clearly an important factor in maintaining a successful construction programme in the field, and the development of productive relationships of this kind should be in the forefront of the minds of all field staff involved in RSP activities. The interviewers were impressed by the high degree of success which current field staff have already achieved in this respect.

9. Problems encountered

Lack of tools, problems with stony ground, and slowness of householders to provide necessary materials were the most frequently cited problems. In addition, two builders complained that the pay was too low, and there were also complaints about misunderstandings between builders and clients as to whether food should be given in addition to cash (particularly, as often happens, when the builder has to travel to a village other than his own in order to fulfill a contract), slowness to pay on the part of the householder, and a case of a householder who dug his own pit to the wrong dimensions.

Most problems reported (10) were said to have been solved. Six problems were not solved (four of these were problems of tool shortages). Those who complained of materials shortages said they simply had to wait until the householders delivered the goods, with a consequent slowing down of the rate of progress. Two of the builders who had problems with stony ground said they solved the problem by building high ringbeams.

The RSP currently deposits two or more full sets of tools in project sites for use on a loan basis by local builders. This has clearly helped, though some problems in returning tools and releasing them for other builders have been encountered. The builders were heartened by the confirmation of the news that free tool kits would be presented to builders on completion of 20 latrines. This incentive was very much appreciated, and on-the-spot arrangements were made during the course of the evaluation to deliver kits to builders who had recently completed the required number of latrines.

Some builders reported difficulties due to their lack of working clothes and during the course of discussions many sought the assistance of the project in obtaining overalls. Many were keen on the idea of obtaining "official" overalls, with an RSP logo, not only to solve their clothing problem, but also to enhance their status among the local community and boost their own sense of identification with the project. This was generally felt to be a good idea and it was proposed that suitable overalls might be distributed as an additional incentive, say after completion of 10 latrines.

10. Drop-out builders

The high drop-out rate among local latrine builders has been a cause of significant concern to the RSP for some time. At the four sites investigated in this evaluation exercise, only about 25% of trained builders have proved to be active after completing their training, ranging from relatively high activity rates at Liphiring and Mpharane (40-50%), to much lower figures at Likoeneng and Maphutseng.

The issue of the high drop-out rate was discussed in some detail at all four sites. Five of the builders interviewed were inactive, and these accounted for their inactivity as follows: one said he lacked experience/confidence; two that they suffered from ill-health; one that she had childcare obligations; and one that he had other obligations.

In the course of discussions, several reasons were advanced to explain the drop-out rate, and it appears that this phenomenon has many causes, and thus a simple remedy is not immediately apparent. Some of the reasons suggested were: some trainees may not have been serious to begin with; some may not have been satisfied with the recommended rates of pay; some had left their villages to seek employment elsewhere; some may not have been trusted by the community; some may not have felt sufficiently confident of their skills. Some builders also reported that they have suffered a certain amount of teasing from the community about the nature of their occupation, particularly in the early stages. This, however, was not considered to be too serious a problem, particularly by those who had built a substantial number of latrines and were now reaping the financial benefits.

In the case of women, two principle reasons were offered for their inactivity. First, because of their domestic obligations, it is very difficult for women to find the time to engage in latrine construction on a full-time day-to-day basis. They already have a considerable workload to contend with, and even if highly motivated are severly handicapped in their attempts to become serius builders. Second, construction work, particularly masonry, is considered a male occupation and it is difficult for women to establish their credibility in this field. When offered a choice, the bulk of the rural population is likely to select a male rather than a female builder.

One reason given for which a solution may be available relates to the "slack" period which has been observed in all early project sites, from the time of the completion of the builders course in a community and the generation of a significant demand for VIP latrines. In most communities, the majority of members are cautious about investing in latrines, or need time to accumulate the necessary funds, and thus many builders are unable to get work for perhaps a month or two after completing training. Some may become demoralised by this, and drop-out for this reason, while others may forget their training during this time and thus lack the confidence to engage in latrine construction when the demand increases.

Similarly, the need to generate income in the immediate term leads to some trainees involving themselves in other activities which subsequently deny them sufficient time to build latrines when the opportunities arise. Some builders may also lack the

entrepreneurial skills to build up a clientele of their own and generate a demand for their services by their own efforts.

As a follow-up to these findings, modifications have already been made to the RSP programme, allowing greater time for intial demand generation at sites prior to the holding of a builders course. Attempts are now being made to ensure that as many builders as possible are able to find work as quickly as possible after the completion of training. Initial indications from Ha Nohana and Lithipeng suggest that this revised approach may be bearing fruit.

Finally, field staff at Mpharane noted a return to project activities by builders who had previously dropped-out when the credit scheme for latrine construction was introduced at that site. The rapid increase in demand that the availability of credit generated appears to have assured builders that there were sufficient customers to justify the risk of entering into latrine building as a serious enterprise.

Training costs to the project for local builders are relatively low (approximately M.100 per builder), and thus some degree of dropping-out can be tolerated, and indeed is to be expected. On the other hand, where it is possible for the project to take steps to offset this trend then obviously all possible action should be taken. Greater efforts need to be made to generate work for builders in the period immediately following training (either by undertaking school latrine construction immediately after training courses have been completed, or by spending more time prior to the holding training courses in generating domestic demand). The early introduction of credit schemes is also likely to have a significant impact on demand.

Greater encouragement to builders to erect their own latrines may also have a positive effect, both in raising the confidence of builders in the skills they have acquired and by providing a direct demonstration to the population of the builder's skill and his confidence in his product. One problem here may be that builders offer themselves for training because they are short of money and thus may not be in a good position to build their own latrine until they have obtained sufficient work to obtain the funds.

11. Summary and Conclusions

In discussions, the local builders requested the following: more access to tools; the provision of tools (either crowbars or, preferably, jack-hammers) to deal with rocky ground; the provision of "official" overalls; and the establishment of price differentiation based on materials used (i.e. more pay for more time-consuming materials).

As noted, morale among builders was generally high, as was their sense of identification with the project. Field staff have clearly succeeded in establishing very good relations with active local builders as this has contributed substantially to the success of the project.

For those builders who have adopted latrine construction on a full-time basis, this occupation has evidently proven to be highly viable from an economic point of view, allowing them to generate a reasonable income without the inconvenience of having to travel far from home for extended periods. Latrine building thus offers a good potential for rural income-generation, particularly for active men who are unwilling or unable to obtain work in South Africa.

In general, the local latrine builders programme has achieved notable successes, as evidenced, among other things, by the substantial extent to which the project's initial construction target has been exceeded. There is, however, clearly scope for further development of the programme and important problems remain to be considered and solved. In particular, further attention must be given to the issue of drop-out builders and, in conjunction with this, ways of generating increased initial demand investigated and tested, and urgent steps taken to increase the availability of credit and thus boost the early demand for builders services.

REVIEW OF THE HEALTH EDUCATION PROGRAMME

Introduction

The main goal of the RSP (and subsequently the NRSP when it is launched at the beginning of 1987) is to achieve a significant reduction in the incidence and prevalence of diarrhoeal diseases among rural Basotho. It has been estimated that close to 40,000 attendances per annum are made to various clinics and hospitals in Lesotho for the purposes of seeking relief from various gastro-intestinal conditions. It is common knowledge however that diarrhoeas are generally under reported because most people do not consider them to be sufficiently serious to warrant a trip to the hospital or clinic. The cases that are therefore seen at the various clinics and hospitals may only represent the tip of the iceberg.

The high incidence of diarrhoeal diseases is primarily caused by the extensive indiscriminate defaecation that goes on in the fields and gullies. Many people do not have access to any form of latrine whatsoever. In addition the standards of personal hygiene are very low among the vast majority of the rural population . There is also a considerable amount of indiscriminate and poor refuse disposal . .

The need for a strong health education component as an integral part of the Rural Sanitation Project was recognised at the onset of programme. However due to manpower constraints , this component could not immediately be implemented until the beginning of this year . Since then , the health education programme is being strengthened with passing time . Health education is central to the RSP and ultimately will be the driving force behind it's success.

In order to attain RSP objectives serious attempts had to be made to address these foregoing issues through undertaking the following activities:

- promotion of the construction and use of V.I.P latrines
- encouraging the proper maintenance of VIP latrines
- promoting high standards of personal hygiene
- promoting the proper disposal of children's faeces.

In the main , the above major activities have been the principal foci of health education activities.

HEALTH EDUCATION PROGRAMME

1. Outputs

The health education strategy is operational at three levels- and designed to yield a number of outputs (behaviours) at the individual/family and community levels:

At the individual and family level , the following outputs are anticipated:

i. Acquisition of a VIP latrine on the family compound of every household;

ii. Regular use of VIP latrines by everybody including children;

iii. Use of latrines by children at as an early an age as is possible .

iv. immediate and proper disposal of faeces of children who are incapable of using latrines by themselves;

v. Proper care and maintenance of latrines ;

vi. Hand washing after each visit to the latrine and always before handling food;

vii. Avoiding defaecation in dongas and behind aloes;

viii. Always keeping food covered and keeping cooking utensils and kitchen clean;

ix. Fetching and storing water in clean and covered containers;

x. Ensuring that drinking water is safe for human consumption .

At the community level the following outputs are expected;

i. Assistance to neighbours with latrine construction; i.e. neighbouring households co-operating in the construction of VIP latrines ;

ii. Protection or improvement of community water supplies through active collaboration with the VWSS/MOI ;

iii. Participation of community members in VIP latrine promotional as well as user and health education activities such as :

- distribution of educational materials;
- community mobilisation

iv. Co-operation with RSP field staff in the production and distribution of latrine components ;

v. Participation in the operation and management of financial aspects of community sanitation activities e.g. credit schemes.

2. OBJECTIVES

In order to achieve these outputs, the health education programme has set itself the following long term objectives:

By 1999 :

i. 90% of rural households should have hygienic sanitation facilities (presently defined as VIP latrines) on their premises.

ii. Each member of any household with basic sanitation facilities should practice acceptable standards of personal and domestic hygiene such as

a. using a VIP latrine always ;
b. proper handwashing before handling food and after each visit to the latrine ;
c. Protecting food from flies and dust ;
d. Avoiding defaecation in dongas ;

3. ACTIVITIES

In order to achieve these objectives , a number of activities are being carried out on a systematic and regular basis. Health education activities in the field have been carried out mainly by a core of Health Assistants with support from Village Health Workers (VHWs). In order to maximise the effects of these activities and accelerate the adoption of recommended healthful behaviours attempts are made to involve the community at all times. By and large , activities have taken the form of pitsos, group discussions,meetings briefings , participatory sessions and home visits .

3.1 Pitsos

These are generally gatherings of communities during which government policies, current topical events and issues of interest or concern to communities are discussed at community level and decisions arrived at subsequently .They are usually convened by the local chief and his elders or councillors.

Pitsos are generally used by RSP field staff and other extension workers to create rapid awareness about the sanitation programme in the locality. These pitsos are called after a meeting or briefing session has been held with the local chief and his elders . At these pitsos the main issues that are discussed include the following;

- The extent of the problem of poor sanitation and the effect these have on the health of the people , particularly children ;
- The relationship between poor sanitation and diarrhoeal diseases ;
- The need for all and sundry to practice acceptable standards of sanitation in order to reduce the incidence of diarrhoeal disease ;
- The problems associated with ordinary pit and bucket type latrines ;
- The characteristic features of a VIP latrine and how it works to overcome the problems of smells and flies ;
- The strategy being used to ensure that every member of the community has the opportunity to acquire a VIP latrine .

These health pitsos are generally addressed by Health Assistants , Nurse Clinicians and Village Health Workers with the last word usually delivered by the Chief or one of the councillors. At the end of the pitso, handouts are given to members of the community . These handouts carry the same messages conveyed during the pitso .

3.2 Group discussions / Briefings / Meetings

In order to go beyond the awareness creation stage in the health education and VIP latrine promotion process and help develop real interest of the people in the sanitation programme and hopefully get them to adopt the recommended practices , there is the need to help people overcome their own problems and limitations which prevent them from adopting healthful practices . Real interest development can only be done at the small group level where people feel freer to discuss issues affecting their welfare. These small group meetings and discussions are organised in such a way that people are able to more actively participate in the deliberations. At these discussions , issues raised at the pitsos are further discussed. Flipcharts and other educational materials are used to illustrate critical points At the end of the discussions further appointments are made with individuals for subsequent home visits. Educational materials like flyers and other handouts are distributed to the members of the audience to take home either to paste up on walls around their homes or for further reference. Some of these materials are usually passed on to other people .

3.3 Participatory sessions

One method which is being shown successfully to enhance the value of group learning in various parts of the world is the participatory approach. Participatory sessions are activities which harness the creative talents of an identified learning group in order to identify, analyse and attempt to resolve their own problems . The activities focus on the use of various materials such as pictures , games etc to stimulate ideas and discussion among the learning group . Hence the group moves carefully but systematically plans strategies at it's own pace for the resolution of problems in order to attain optimum health . This approach is therefore being tried out in a number of villages in the project area. The introduction of the participatory approach as a means of enhancing the promotion of RSP goals is the direct result of a workshop which was held in Mohale's Hoek in April 1986 .

At the end of the workshop a number of teams were formed. These teams comprised of Health Assistants , Rural Development Assistants and Village Health Workers who participated in the workshop . These teams , working co-operatively on a pilot basis in selected villages are helping learning groups to identify their own problems , analyse them and plan strategies to resolve them . The bias, of course, is towards sanitation and health related issues . The approach tends to maximise participation within the learning groups since the activities are designed for small groups of 5-7 persons.

One direct benefit of the workshop is the pooling of resources in developmental activities in selected villages , by the extension staff who participated in the workshop . In order to facilitate the application of the "SARAR" participatory methodology by the extension staff , a field manual on participatory approaches , a field workplan , standardised forms for reporting on health education and participatory activities and some accompanying materials for use in participatory activities have been developed .

(Copies of the proceedings of the participatory workshop , in which the "SARAR" methodology is explained , the participatory field manual and a brief report on the follow up activities are available separately.)

3.4 Home Visits

These have been a central thrust in the health education programme. Such visits have in the main been carried out by Health Assistants and Village Health Workers . During calls on families the inter-relationships of poor sanitation and health are further explained. The distinguishing

characteristics of, and the advantages of the Ventilated Improved Pit latrine are also explained. During these visits, the construction of VIP latrines are actively promoted. The importance of high standards of personal and environmental hygiene in the prevention of certain communicable diseases and the protection of health are also emphasised .Also during these visits, educational materials are sometimes used to clarify issues . Some of these are actually left behind with the family for future reference and also to be passed on to other relatives and friends.

3.5 Use of drama

Another educational activity which has taken place in some selected villages is the use of drama as a vehicle for change. A story embodying the main issues of environmental sanitation , diarrhoeal disease control , personal hygiene and the characteristic features of the VIP latrine was developed by the "Theatre for Development Project" of the Department of English (National University of Lesotho, Roma) .
This play was performed in selected villages in all six pilot sites . Overall , about one thousand people from neighbouring villages saw this play . In a number of places a few people immediately signed up to have latrines built for them while others expressed the desire to acquire latrines as soon as they have straightened out their finances or sought clearances from their husbands or relatives . The response to the play was rather encouraging and the RSP is seriously considering putting together a drama troupe in order to bring the sanitation message to many more people through this medium.

SUMMARY OF DRAMA RELATED ACTIVITIES

No	NAME OF VILLAGE (PROJECT SITE)	DATE	PARTICIPANTS men	women	chn	total	*EXTENT OF PARTICIPATI
1	Maikalanyaneng (Maphutseng)	19/6/86	30	70	20	120	high - 4
2	Ha Sechele (Likoeneng)	2/7/86	25	65	25	115	medium-3
3	Ha Kooko (Mpharane)	3/7/86	38	42	50	130	high - 5
4	Majekane (Liphiring)	4/7/86	50	80	50	180	medium-4
5	Phamong (Phamong)	31/7/86	100	120	100	320	medium-4
6	Ketane (Ha Nohana)	1/8/86	120	150	160	430	low - 2
			363	527	405	1295	

* EXTENT OF PARTICIPATION

NONE	LOW		MEDIUM		HIGH	
0	1	2	3	4	5	6

4 MATERIALS and AUDIO VISUAL SUPPORT

In order to diversify the manner in which sanitation messages are passed on to the rural people , a number of health education and promotional materials have been prepared for distribution.

A **flipchart** focusing on the relationship between sanitation , health and the VIP latrine was prepared to guide all extension staff during group meetings in order to ensure that nothing important was left out .

A supplementary **booklet** on this same topic was also prepared as reference to the flipchart . Basically the booklet expands on the issues raised in the flipchart . This booklet is also meant for distribution to community leaders , teachers ,

school pupils , heads of households and any other persons who might be interested in further information about sanitation.
In addition to these , 4 (four) **flyers** are also available for distribution. These flyers give rather brief information about the extent of the problem of poor sanitation and what needs to be done by everybody to overcome the problem. They also describe the characteristic features of a VIP latrine . One of the flyers is meant to be distributed specifically by local latrine builders . A number of **tape slide programs** are also available for use . The programs deal with :

- Planning rural sanitation programs
- Working for health
- Introduction to VIP latrine construction
- VIP latrine construction procedures (in preparation)

These tape slide programs have proved to be very popular during training courses as well as briefing sessions for various categories of extension workers.
(See Table for a summary description of the health education and VIP latrine materials developed and in use)

5 TRAINING

In order to ensure that extension staff have the requisite skills to undertake meaningful health education tasks , a training program on participatory approaches was organised for a number of extension staff in Mohale's Hoek district. The main aims were to :

- brief participants on RSP strategy
- update their knowledge of sanitation related issues
- foster teamwork approach among participants
- introduce participatory approaches as a means of enhancing the participation of community members in the process of problem identification and resolution .

The 24 participants were drawn from project staff and other extension staff in the district . They were made up of 7 Health Assistants,7 Rural Development Assistants,7 Village Health Workers, 1 Nutritionist and 2 Technical Assistants . At the end of the workshop, participants committed themselves to the ideals of the participatory approaches through the formation of teams to carry out participatory activities in the various communities where they work . True to their word a number of sessions have been carried out .(See section 6) RSP staff have also been involved in the training programs of Village Health Workers as well as Health education and co-ordination courses.

6 PARTICIPATORY WORKSHOP FOLLOW UP ACTIVITIES

The justification of the RSP in supporting the participatory approaches workshop was to equip extension staff with

knowledge and skills which would enable them actively pursue project objectives,i.e. enhancing the willingness and ability of rural communities to build and use V.I.P latrines as well as getting various extension staff to work co-operatively in resolving community problems.

As a follow up to the workshop a number of participatory sessions have been held in a number of villages in project sites during the months of May and June 1986. In the short term these activities may constitute a measure of the effectiveness of the workshop and the willingness of workshop participants to use participatory approaches to resolve community problems. These sessions were the culmination of co-operative efforts by some Health Assistants , Rural Development Assistants and Village Health Workers who participated in the workshop.

In a way, the fact that these sessions were held lead to further confirmation that it is possible for different categories of extension workers to work co-operatively and with communities in addressing community problems. It may be recalled that the main goal of the RSP is promoting the construction and use of V.I.P latrines as well as promoting practices which are compatible with healthy living among rural populations in Mohale's Hoek district.

In order to achieve this goal, the health education component of the RSP is being strengthened. This explains the desire of the RSP to promote strategies which would enhance co-operation among extension workers, thereby maximising community participation in project activities. In so far as enhancing co-operation among extension staff as well increasing community participation in project activities are concerned, it may be said that RSP objectives in supporting the workshop are gradually being realised.

Two learning groups were identified for follow up activities, one each in Ha Sechele (Likoeneng pilot area) and Ha Ntekoane (LIphiring pilot area). A number of sessions were held with these learning groups . All sessions dealt with the identification and analysis of community problems. These sessions have brought to the fore a number of important issues. It is pertinent to note here that the sessions in Ha Ntekoane have culminated in the protection of a community spring while individuals from both villages have expressed willingness to build V.I.P latrines as soon as possible.The learning group in Ha Ntekoane also identified the lack of safe water as their immediate problem requiring attention and therefore discussed the options available to them for remedying the situation. The acquisition of a latrine being a family issue is not proving easy to handle. This is mainly a problem of the relationship of the learning group to the rest of the community and how far the group can go in making decisions on behalf of the community as well as selling ideas

generated during the participatory sessions to other community members.
Another issue is that of the attitude of the learning group to the participatory methodology itself. The villagers seemed a bit uneasy about the whole process, having been used to the traditional pitsos where they are " addressed" on matters affecting them and invariably told what to do or otherwise. With time it is hoped that such issues would be thrashed out.

A participatory approaches workplan and an accompanying field manual have being developed to guide participants in the use of the materials and techniques. It is the hope of the RSP that the regular use of participatory approaches in RSP activities will soon be the rule rather than the exception. An assessment of the participatory workshop and the follow up activities are scheduled for review early next year. During this review ,the participatory manual will be finalised and other new materials developed.

SUMMARY

By and large , there is evidence that health education programme is having some impact as shown in the results of the evaluation survey held recently. The survey results , and the feeling of RSP staff , suggest that we are making progress with our target populations.
It should be borne in mind that our target population is being requested to make a significant investment in terms of money and perhaps time too. We are also recommending changes in lifestyle in addition to knowledge and attitudinal changes. Change does not occur in a vacuum and cannot be haphazard . It has to be planned and with the target population . The health education programme is attempting to systematise the process of change for the attainment of optimum health through the use of all available resources at the disposal of the RSP staff. The task itself is an arduous one but we have managed to get the wheels rolling . There is the need to expand the forums for health education activities. In the coming months , a vigorous attempt would be made to involve more actively the schools , churches and voluntary organisations in the process of change . There is also the need to create a bandwagon effect through the use of the mass media . Song and story telling competitions would be organised through these institutions with the support of the mass media to bring the message of sanitation home to everybody .
There is also the need to create adequate support for those who have already taken the initiative . Efforts would be undertaken to maximise the benefits of the acquisition of a VIP latrine to those who have them so as to help reduce the risk of occurrence of diarrhoeal diseases .
In order to achieve RSP goals , everybody would have to carry the sanitation message across . Those people who have the knowledge would have to help in spreading the message .

RURAL SANITATION PROJECT (LES / 82 / 0 7)

HEALTH EDUCATION MATERIALS

No	Type of material	Title	Description	Target Group	Intended purpose
1	Flipchart	Sanitation Health and the VIP latrine	-26 pages, (A2 and A3 sizes) -Reviews the relationship between sanitation and health It describes the VIP latrine and the key role it plays in the maintenance of high standards of sanitation .	Community leaders Teachers School children General public	Use as a teaching aid during group meetings & pitsos
2	Booklet	Sanitation , Health and the VIP latrine	-16 pages (A5 size) -Expanded self explanatory illustrated reference material for use with above flipchart.	Same as above	-Give out to target group to reinforce sanitation messages.
3	Posters	i. Care for your latrine	-Single sheet (A3 & A4 sizes) -poster carries a limited message with illustration	General public	-Use for promotion and education during implementation stages of sanitation programmes -Paste up at vantage points in the community.
		ii. Hands can bring disease	"	"	"
		iii. Flies can cause diarrhoea	"	"	"
		iv. Prevent diarrhoea	"	"	"
		v. Fight diarrhoeal diseases	"	"	"
		vi. Join the fight against diarrhoeal diseases (a)	"	"	"
		vii. Join the fight against diarrhoeal diseases (b)	"	"	"
		viii. Prevent Typhoid	"	"	"
4.	Tape slide prog.	Sanitation Health and the VIP latrine	-60 slides with script ; -Reviews the relationship between sanitation and health It describes the VIP latrine and the key role it plays in the maintenance of high standards of sanitation .	Community leaders Teachers School children General public	Use as a teaching aid during group meetings & pitsos

Type of material	Title	Description	Target Group	Intended purpose
Tape slide prog.	VIP latrine construction	-140 slides with script -Programme divided into modules, each one focussing on specific aspects of the training.	Trainee latrine builders	-Use during training of of local latrine builders
Flyers	i. Build a VIP latrine now .	- Single sheet	-Heads of households -General public	-Local latrine builders to use this flyer to advertise their services.
	ii. The VIP latrine	- Single sheet	-Heads of households -General public	-Use for promotion of VIP latrines.
	iii. VIP latrine maintenance guide	- Single sheet	-VIP latrine owners	-Use to ensure regular and routine maintenance
	iv. The VIP latrine (2)	- Single sheet	-Heads of households	-Use to promote VIP latrine construction
LETTER (+ FLYER) (+ ENVELOPE)	The VIP latrine and your health	-1 page letter informing migrants about the introduction of VIP latrines in Lesotho -2 page flyer on VIP latrines attached. -Envelope with RSP logo included in package.	-Migrants and their families	-Distribute to families who express desire to acquire a VIP latrine but cannot afford it.
MANUAL	VIP latrine builders manual	-40 page latrine builders manual -Focusses on VIP latrine construction and maintenance.	-local latrine builders -Householders ???	Local latrine builders to use as reference guide
	Participatory approaches field manual	-50 page field manual outlining various materials and techniques for maximising participation in sanitation activities .	-Extension staff	Extension staff to use as reference guide to various participatory materials and techniques
HANDOUT	VIP latrine builders reminder	-2 page single sheet laminated 8 point reminder card -Reinforces critical elements of latrine construction	-local latrine builders	Local latrine builders to use as reference guide

No	Type of material	Title	Description	Target Group	Intended purpose
9.	PARTICIPATORY MATERIALS				
9.1	Unserialised posters	None	-30 single sheets drawings depicting various facets of community life	General public (in the form of a community learning group or or village gathering	Community members to select from set and use selection to tell a story and or problem existing in the in the community.
9.2	Flexi flans	None	-2 sets of cardboard pictures with moveable joints . Each set is made up of people, animals, objects etc. For use on a flannel board .	General public (in the form of a community learning group or or village gathering	Community members to select from set and use selection to tell a story and or problem existing in the in the community.
9.3	Game	Houses of health	Game for 3 - 10 players. Game board has squares with either houses or other diagrams in them	General public	To sensitise community members about factors and behaviours which influence the transmission of diseases.
9.4	Game	Arrows game	Game for 2-4 players. Game board has 100 squares. A dice and coloured chips are used to play the game.	General public	To create awareness about some positive and negative factors which affect health

EVALUATION SURVEY REPORT #2
HOUSEHOLD HEALTH AND HEALTH EDUCATION DELIVERY

1. Introduction

The long-term objective of Rural Sanitation Project activities is to contribute to the general improvement of the health and well-being of the rural population. The introduction of sanitary latrines is a significant step forward towards the attainment of this goal, but is only the first step down a long road.

Improved technologies can contribute to upgrading environmental health conditions, but significant improvements in health are unlikely to be achieved in the absence of behavioural changes among the population. In other words, the installation of sanitary latrines may be seen as a vehicle upon which a process of behavioural change may be carried forward.

The need for an energetic and effective Health Education component as an integral part of RSP activities is clear, and has long been recognised. To assist in the development of such a programme, periodic evaluation of the effectiveness of educational inputs is required. To this end, evaluation of Health Education activities has been included as a major part of the Plan of Operations for the monitoring and evaluation of RSP activities.

In this section, the results of the first major field test of the evaluation instrument are reviewed.

2. The Survey Form

The primary instrument for the formal evaluation of the impact of Health Education activities is a questionnaire form, administered at selected households in both project and control sites on an annual basis. The questionnaire seeks information on household composition; socio-economic, occupational, and educational status; recent health status of household members; knowledge of disease transmission; levels of exposure, and attitudes, to Health Education messages; and standards of domestic hygiene.

An earlier version of the survey form was pre-tested at two project sites during 1985. The revised version is contained in the current Plan of Operations for Monitoring and Evaluation.

3. The Sample

Interviews were conducted in a total of 196 households, distributed among six rural sites in Mohales Hoek district, and two others in Mafeteng district. Four of the sites were in

project areas, with the remaining four being matching controls. Outline details of the sites surveyed are shown in the following chart :-

SURVEY SITES & NO. OF HOUSEHOLDS VISITED

Date	Site	Status	No. of Households
24 June	Liphiring	Project 1	25
26 June	Mpharane	Project 2	25
25 June	Likoeneng	Project 3	23
1 July	Maphutseng	Project 4	25
25 June	Ha Monyake	Control 1	25
26 June	'Masemouse*	Control 2	24
30 June	Ha Sempe*	Control 3	25
1 July	Nkhetheleng	Control 4	24
		Total	196

* Mafeteng District

Households were selected by a random sampling method. Enumerators were distributed among villages within each site area and instructed to conduct interviews in every fourth household until the required number of forms were filled. When nobody was found at home enumerators moved on to the next house, and so on, until an informant was found. Interviews were conducted, where possible, with the head of the household. If the head was absent, a senior member of the household (usually the wife of the head) was interviewed instead.

Baseline surveys were conducted at the same sites during 1984 and 1985, and the results obtained from these earlier exercises provide a means of checking the validity of the samples. At the time the survey was conducted, the project had also recently begun activities at Phamong (site 5), and since then activities have also begun at Ha Nohana (site 6). These sites are not included in this survey round, however, since the RSP has not had a long enough association with these areas to produce valid data at this point. These two sites will be included in next year's evaluation round.

4. The Households

As noted, interviews were conducted in a total of 196 households, evenly distributed among eight sites. The general characteristics of households were more or less uniform from site to site, and in broad conformity to the baseline findings.

Of the total sample, 158 households (80.6%) were male-headed. A large proportion of household heads, however, are absent from home for the bulk of the year. Most of these are migrant workers in the South African mines. In our sample we found that this was true of 45.8% of household heads. Thus, at least for the purposes of day-to-day management, a total of 64.1% of households in our sample are *de facto* headed by women.

The high level of male absenteeism from rural homes makes men hard to find, and thus the majority of our interviews were conducted with women. Thirty-four interviews were conducted with men, and 162 with women.

High levels of absenteeism also affect household composition, and population figures for Lesotho are usually stated in both *de jure* and *de facto* terms. Overall, mean *de jure* household size across our sample was 5.6 persons per household, with a low of 4.36 at Mpharane and a high of 6.56 at Maphutseng. In *de facto* terms (with migrants discounted) the mean was 4.95 persons per household, ranging from 3.84 at Mpharane to 5.84 at Maphutseng.

Overall, 60.5% of households had at least one absentee member. Maphutseng and Ha Monyake had the lowest percentage of migrants, with 44% of households reporting absent members, while Liphiring had the most, with 80% of households reporting absentees. The high figure at Liphiring may be accounted for by the very poor quality of farmland in this area and the consequent difficulties of subsisting on local resources.

Household compounds are often made up of clusters of buildings. At 196 households, we counted a total of 366 buildings, giving a mean of 1.8 buildings per household. There were a total of 581 habitable rooms in the households surveyed, giving a mean of 2.96 rooms per household, and a mean of 1.93 persons per habitable room.

The age and sex distribution of the population surveyed shows the pyramid shape characteristic of many of the developing nations. The households surveyed contained a total of 1,138 occupants (513 males, 625 females). Of these 21.2% were under five years of age, while a further 24.1% were in the 5-15 age group. Thus, overall, 45.3% of the population surveyed were under 15 years. Females significantly outnumber males (55% to 45%).

HEADS AND INFORMANTS BY OCCUPATION

Occupation	PILOT SITES				CONTROL SITES			
	Heads		Infs.		Heads		Infs.	
	No.	%.	No.	%.	No.	%.	No.	%.
Migrant	35	36.1	2	2.0	30	30.6	3	3.1
Housewife	18	18.6	76	77.5	12	12.2	63	64.3
Farmer	7	7.2	4	4.1	9	9.9	8	8.2
Trader	2	2.1	3	3.1	2	2.0	0	0.0
Govt.	1	1.0	1	1.0	2	2.0	1	1.0
Teacher	1	1.0	2	2.0	1	1.0	2	2.0
Craftsman	0	0.0	0	0.0	0	0.0	2	2.0
Labourer	11	11.3	2	2.0	14	14.3	1	1.0
Student	0	0.0	2	2.0	0	0.0	1	1.0
Domestic	0	0.0	1	1.0	0	0.0	4	4.1
Retired	3	3.1	0	0.0	1	1.0	1	1.0
Unemployed	15	15.5	3	3.1	21	21.4	9	9.2
VHW	0	0.0	0	0.0	0	0.0	1	1.0
Other	2	2.1	2	2.0	5	5.1	2	2.0
Missing	2	2.1	0	0.0	1	1.0	0	0.0
Total	98	100.0	98	100.0	98	100.0	98	100.0

HEADS AND INFORMANTS BY EDUCATION

Education	PILOT SITES				CONTROL SITES			
	Heads		Infs.		Heads		Infs.	
	No.	%.	No.	%.	No.	%.	No.	%.
None	26	26.5	15	15.3	31	31.6	10	10.2
Std.1-2	13	13.3	14	14.3	20	20.4	15	15.3
Std.3-4	23	23.5	15	15.3	10	10.2	21	21.4
Std.5-7	22	22.5	29	29.6	24	24.5	33	33.7
Frm.1-3	3	3.5	9	9.2	2	2.0	5	5.1
Frm.4-5	3	3.5	10	10.2	5	5.1	8	8.2
University	1	1.0	0	0.0	1	1.0	0	0.0
Other	3	3.5	5	5.1	0	0.0	0	0.0
Missing	4	4.1	1	1.0	5	5.1	6	6.1
Total	98	100.0	98	100.0	98	100.0	98	100.0

The occupational and educational status of household heads and informants, in both pilot and control sites, are summarised in the above tables.

The dominant occupation for household heads is migrant worker, predominantly in South African mines. In pilot sites, this accounted for 36.8% of heads, the fewest being at Maphutseng (25%), and the most at Mpharane (45.8%). At control sites, the overall figure was 30.9%, ranging from 28% at Ha Sempe to 37.5% at Nkhetheleng. At all sites, migrant labour was the largest single occupational category.

Women, describing themselves as housewives, were also a significant category, accounting for 18.9% of heads at pilot sites and 12.4% at controls. Labourers were also well represented (11.6% and 14.4% respectively) and the unemployed (15.8% and 21.6%). At Maphutseng, Masemouse, Ha Sempe, and Nkhetheleng, a quarter or more of household heads described themselves as unemployed.

Among informants, the overwhelmingly dominant occupational category was housewife, accounting for 77.5% at pilot sites and 64.3% at controls. This reflects the high level of male

absenteeism, and the consequent difficulties in interviewing economically active men at their rural homes. Under certain circumstances, this feature of rural communities would present serious difficulties in the collection of interview data, but in the case of this exercise necessity can be seen as a virtue insofar as women, as the rearers of children, play the dominant educational role within the home, particularly in respect of the development of habits (which are likely to last a lifetime) relating to issues of personal and domestic hygiene. Thus, in reviewing attitudes and levels of knowledge in respect of these issues, the data obtained from female informants is likely to give a more realistic guide to the impact of educational work and its likely influence upon younger members of the community.

In respect of education, we found that, although a significant proportion of rural household heads and informants had attended school, levels of attainment were generally low. Among household heads, 27.6% at pilot sites and 33.3% at controls had no formal education at all. Of those who had attended school, very few had progressed beyond primary school. At pilot sites, only 10.7% had progressed to secondary school or beyond. At control sites, the figure was 8.7%.

If it is assumed that basic literacy in Sesotho may be obtained after four years of elementary education, then the figures suggest that, overall, 32.8% of heads in our sample have reached this level (34.1% at pilot sites, 34.5% at controls).

Among informants, the percentage with no formal education was significantly lower, accounting for 15.5% at pilot sites and 10.9% at controls. This reflects the generally higher rate of school attendance in rural Lesotho among girls. Although girls have their share of domestic responsibilities, usually water collection and general cleaning duties, these can be undertaken in the early morning and late afternoon, leaving the day free for schooling. Boys, on the other hand, are often required to herd livestock during the day, making consistent school attendance impossible in many cases.

Consequent to this is the generally greater capacity of girls to progress to secondary school. Among informants, who are mostly female, 24.8% at pilot sites and 14.1% at controls, had progressed to secondary school or beyond.

Levels of assumed basic literacy among informants (and hence among adult women) were also higher than among household heads. Overall, 52.3% (54.7% at pilots, 50.0% at controls) had progressed beyond Standard 4.

5. Household Health Status

After gathering basic data on the household, the next section of the survey form was concerned with the recent health status of household members. Informants were asked to report whether any members of the household, including children, had suffered a bout of diarrhoea during the week preceeding the interview, and also to report ilnesses of other kinds suffered by household members during the same period. The purpose of these questions was to obtain a rough guide to the recent incidence of diarrhoeal disease in the selected households, and its comparative incidence in relation to other diseases and ailments.

It should be noted that the collection of data on the incidence of disease by this method is by no means a reliable one, even though the reporting period is a short one. For this reason, such data alone could not be regarded as sufficiently rigorous for use in, for example, health impact evaluation. The purpose of collecting this information was merely to give a rough guide to diarrhoeal incidence and other disease and investigate whether any relationship exists between incidence within households, latrine ownership, and knowledge and attitudes.

REPORTINGS OF DIARRHOEAL DISEASE BY HOUSEHOLD

Site	Yes	%.	No	%.
Liphiring	4	16.0	21	84.0
Mpharane	5	20.0	20	80.0
Likoeneng	1	4.3	22	95.7
Maphutseng	0	0.0	25	100.0
Ha Monyake	0	0.0	25	100.0
Masemouse	3	12.5	21	87.5
Ha Sempe	2	8.0	23	92.0
Nkhetheleng	2	8.3	22	91.7
Total	17	8.7	179	91.3
Mean	2.1	8.6	22.4	91.4

The incidence of gastro-enteritis and other diarrhoeal diseases follows a marked seasonal pattern in Lesotho, peaking in the wet summer months (December to February) and dropping to relatively low levels in mid-winter (July-September). During July, when this

survey was conducted, incidence is widespread reportings were not expected. diarrhoea reported, nine (52.9%) were among age group most susceptible to diarrhoeal dis from attacks.

Reportings of diarrhoea were cross-tabul ownership in order to check whether any signif existed between these two variables. Latrines households within our sample (42.6%). Among households, six cases of diarrhoea were reported. reportings in the remaining 113 households was 12. In other words, cases of diarrhoea were reported in 7.7% of latrine owning households and 11.9% of non-latrine owning households. Although this appears to be a noticeable difference, it is not statistically significant, and hence no clear relationship can be identified from this sample of a direct relationship between latrine ownership and protection from diarrhoeal disease. In addition to reporting cases of diarrhoea, informants were also asked to report other illnesses suffered by household members during the same reporting period. Levels of reporting are shown in the table below.

REPORTING OF OTHER ILLNESSES

Project sites	No.	%.
Liphiring	7	28.0
Mpharane	6	24.0
Likoeneng	8	34.8
Maphutseng	7	28.0
Total	28	28.7

Control sites	No.	%.
Ha Monyake	13	52.0
Masemouse	10	41.7
Ha Sempe	7	28.0
Nkhetheleng	9	37.5
Total	39	39.8

As the table shows, there were a total of 28 reportings at project sites and 39 at control sites, making a total of 67 reportings in all. Most ailments reported were minor and self-limiting. The biggest category was common colds, accounting for 16 cases (23.9%). Ten informants (14.9%) reported stomach pains, seven reported headaches (10.5%), and five (7.5%) reported skin complaints.

Although there was more illness in general reported at control sites than at project sites we draw no conclusions from this since the ailments reported did not appear to be significantly related to issues of sanitation.

6.Knowledge of Disease Transmission

Informants' knowledge of disease transmission, particularly in respect of sanitation-related diseases, was investigated as a guide to the preparation of health education campaigns, and also as an indicator of any impact which project activities may have had to date.

Interviewees were asked if they could give the cause of four sanitation-related diseases and ailments. These were typhoid, diarrhoea, intestinal worms, and scabies. They were also asked if they knew how these illnesses could be treated and, in addition, what steps could be taken to avoid them. Similar questions were asked in the baseline survey exercises in 1984 and 1985, and also in the VIP latrine owners survey conducted this year.

As in earlier surveys, we found that of those who were able to respond to these questions, the vast majority offered answers which were generally in keeping with germ-related theories of disease. Although a little fragmented, these responses indicate that the more knowledgeable (or, perhaps, more articulate) section of the rural population is predisposed to "modern" explanations. Of greater interest for our purposes, therefore, were relative non-response rates: in other words, the proportion of respondents in project and control sites who expressed ignorance of the answers to the questions asked.

The table shows the number and percentage of informants who failed to respond to the questions asked about disease transmission at project sites and control sites. The non-response rates obtained in the subsequent VIP latrine owners survey at project sites 1-4 are also included for the purposes of comparison.

As the table shows, comparison between project and control sites indicates, in important areas, generally lower rates of non-response among informants at the former than at the latter.

This is particularly true of informants' statements about typhoid and diarrhoea, the two sanitation-related diseases which have received most attention in RSP educational work. Little difference in levels of knowledge (or ignorance) in respect of worms and scabies is apparent, and the same is true in respect of treatment and avoidance of all the listed illnesses.

DISEASE TRANSMISSION: NON-RESPONSE RATES

	Project sites		Control sites		VIP survey	
	No.	%.	No.	%.	No.	%
CAUSE						
Typhoid	41	41.8	47	48.0	23	26.7
Diarrhoea	29	29.6	37	37.8	26	30.2
Worms	69	70.4	73	74.5	51	59.3
Scabies	53	54.1	51	52.0	46	53.5
TREATMENT						
Typhoid	41	41.8	42	42.9	20	23.3
Diarrhoea	26	26.5	22	22.4	15	17.4
Worms	67	68.4	70	71.4	37	43.0
Scabies	48	49.0	53	54.1	31	36.0
AVOIDANCE						
Typhoid	46	46.9	53	54.1	30	34.9
Diarrhoea	33	33.7	37	37.8	31	36.0
Worms	75	76.5	77	78.6	56	65.1
Scabies	65	66.3	61	62.2	51	59.3

Further comparison with the responses received during the VIP survey reveal more striking differences. VIP latrine owners show significantly lower non-response rates in respect of almost all questions than the general populations in either project or control sites. The major exception, in respect of both cause and avoidance, is scabies. The highest profile disease, in respect of general health education work, is diarrhoea. Interestingly, both VIP owners and the general population at project sites give more or less equivalent non-response rates, both comparing well

with non-response rates at controls.

During the baseline survey exercises, 53.5% of informants overall could not give a cause for typhoid, 36.5% could not give a cause for diarrhoea, while the non-response rates in respect of the causes of worms and scabies were 67.4% and 51.9% respectively (Baseline 2, p.36). These figures suggest that there has been some improvement at project sites, and particularly among VIP owners, in respect of typhoid and diarrhoea, but no noticeable improvement in respect of worms or scabies.

At a general level, it appears that some degree of success is being experienced in reaching, first, VIP latrine owners (those who have demonstrated their predisposition to project messages) and, second, the general population at project sites, though to a lesser extent. This is encouraging, though rates of non-response (interpreted as levels of ignorance) are still too high and continued concerted campaigns are evidently necessary.

The high levels of non-response in respect of worms and scabies require particular attention. Both of these are related to standards of domestic and personal hygiene: issues which bear very directly on the project's educational aspirations. As is well known, the installation of sanitary latrines is likely to be of little health value if it is not accompanied by significant increases in standards of hygiene in the home.

Though the differences in levels of knowledge between VIP owners, project sites, and control sites are notable and interesting, they are not dramatic enough to warrant confidence that the project is as yet fully succeeding in getting its educational messages across. Major emphasis has been placed on health education activities during 1986, the relative neglect in the first two years being largely due to manpower constraints, and it is hoped that this increase in activity will lead to a measurable impact in future evaluation rounds.

In addition to being questioned on their knowledge of samitation-related diseases, informants were also asked whether some diseases were unavoidable (i.e. that no preventive measures could be taken against them). If they answered in the affirmative, they were also asked to state what they believed these diseases to be.

Overall, 42 respondents (42.8%) at project sites and 34 (34.7%) at controls said they thought some diseases were unavoidable. Of the diseases listed, many were minor, such as colds, and general pains. Among others listed were headaches, diabetes, leprosy, heart disease, epilepsy, tuberculosis, mental illness, and cancer. We were particularly interested in noting whether any sanitation-related diseases were included in this category by informants. However, diarrhoea was only noted by two informants

from the entire sample (one at Liphiring and one at Ha Monyake). Although this is not evidence that informants believed that sanitation-related diseases are avoidable, it does indicate that there are no strongly held cultural beliefs that dismiss the avoidability of such diseases. There is thus scope for promoting the adoption of preventive methods.

Finally, we asked informants to state what measures could be taken to protect oneself against sanitation-related diseases. The results obtained are summarized in the table below.

HOW TO AVOID SANITATION-RELATED DISEASE

	Project sites		Control sites	
	No.	%.	No.	%.
Build latrine	58	59.2	58	59.2
Clean water	22	22.5	21	21.4
Personal hygiene	28	28.5	37	37.8
Domestic hygiene	41	41.8	51	52.0
Eat good food	1	1.0	0	0.0
Go to clinic	1	1.0	0	0.0
Non-response	11	11.2	8	8.2

Informants sometimes listed more than one preventive measure, and thus the figures represent the number of times each response was given. The figures show no dramatic difference in responses between project and control sites. Non-responses were also fairly low overall.

As the table shows, the building of latrines was cited most often at both project and control sites, while personal and domestic hygiene and clean water supplies also scored well. The high citing of latrines encourages caution in that informants' statements may be biassed by their knowledge of the project, but nevertheless give grounds for encouragement. Even though there is evidence that many rural people are not taking the appropriate measures to combat sanitation-related diseases, our findings show, at the least, a significant level of awareness of the "official" advice being disseminated by government and other agencies. The problem for health educators is to disseminate this knowledge even wider, and to find a means to persuade the rural population to act upon it.

7. Pitso Attendance

The pitso, or public gathering, is the traditional Basotho forum for discussion and decision-making at local level. All matters of mutual concern to the community are aired at a pitso and this is considered the proper institution for the imparting of important information and the expression of community views. Traditionally, the pitso was the primary institution through which grass-roots democracy was practised. In modern times, with the development of new political institutions, this role has become somewhat muted, but the pitso retains its character as the primary institution at local level for the exchange of views.

Because of its importance, the pitso is widely used by extension workers and project staffs, both as an educational forum and as means of imparting information about, and obtaining community support for, proposed development programmes. Pitsos have been widely used by RSP staff for these purposes.

In evaluating the impact of educational work it is thus clearly important that the role of the pitso be examined. One section of the survey form was devoted to this issue. Informants were questioned about their levels of attendance at pitsos in general, and their exposure to health-related pitsos in particular. Frequency of attendance was examined, as well as levels of recall of subject matter and the identity of communicators involved in educational activities.

As the table shows, the majority of informants, in both pilot and control sites, attend pitsos at some time or another. At pilot sites, 80.4% of informants reported attending these meetings on at least an occasional basis, with 16.5% claiming to attend every pitso of which they were aware. At control sites overall attendance was somewhat lower, with 65.6% attending at some time or another and 11.1% attending all meetings. At control sites, 34.4% reported never attending pitsos, compared with 19.6% at pilot sites.

Informants at Liphiring claimed to be the best attenders, with 33.3% stating that they always do so. At Maphutseng informants reported the lowest non-attendance rate of 4.0%. Large-scale non-attendance was reported at Nkhetheleng (52.0%), Ha Sempe (40.0%), and Mpharane (40.0%).

Attendance at Health Education pitsos was notably higher at pilot sites (35.1%), than at controls (19.2%). This reflects the activities of project field staff in holding promotional and educational meetings. Attendance at health pitsos at Mpharane was low (16.0%). This may be accounted for by the withdrawal of the full-time presence of a project Health Assistant early in 1986 and the consequent fall-off in Health Education activities in that area. Also, the villages selected for survey at this

site were some distance from the central area of activities and were thus somewhat peripheral to mainstream RSP activities. With Mpharane discounted as an extreme case, the overall rate of attendance at Liphiring, Likeoneng, and Maphutseng is a reported 41.6%.

PITSO ATTENDANCE BY SITE

Frequency of attendance	Liphiring No.	Liphiring %	Mpharane No.	Mpharane %	Likoeneng No.	Likoeneng %	Maphutseng No.	Maphutseng %	Overall No.	Overall %
Always	8	33.3	4	16.0	2	8.7	2	8.0	16	16.5
Sometimes	13	54.2	11	44.0	16	69.6	22	88.0	62	63.9
Never	3	12.5	10	40.0	5	21.7	1	4.0	19	19.6
Total	24	100.0	25	100.0	23	100.0	25	100.0	97	100.0
H.Ed. Pitso in past year										
YES	10	41.7	4	16.0	9	39.1	11	44.0	34	35.1
NO	14	58.3	21	84.0	14	60.9	14	66.0	63	64.9

Frequency of attendance	Ha Monyake No.	Ha Monyake %	Masemouse No.	Masemouse %	Ha Sempe No.	Ha Sempe %	Nkheth. No.	Nkheth. %	Overall No.	Overall %
Always	6	24.0	4	16.7	1	4.0	0	0.0	11	11.1
Sometimes	14	56.0	14	58.3	14	56.0	12	48.0	54	54.5
Never	5	20.0	6	25.0	10	40.0	13	52.0	34	34.4
Total	25	100.0	24	100.0	25	100.0	25	100.0	99	100.0
H.Ed. Pitso in past year										
YES	10	40.0	5	20.8	2	8.0	2	8.0	19	19.2
NO	15	60.0	19	79.2	23	92.0	23	92.0	80	80.8

Among control sites, only Ha Monyake reported a level of

attendance at Health Education pitsos to match that at pilot sites, with 40.0% of respondents saying they had attended such an event in the past year. Nkhetheleng had a significant level of attendance (20.0%), while reported attendances at Ha Sempe and Nkhetheleng were low (8.0% at each).

These figures appear to reflect intensified levels of Health Education activity at sites where the project has a presence. This alone does not give any indication of the impact of educational activities, however, but merely indicates that project presence has been felt to some degree. We therefore sought further indicators of the extent to which informants may have absorbed the messages directed at them.

RATES OF RECALL, HEALTH EDUCATION PITSOS (%)

	Liphiring		Mpharane		Likoeneng		Maphut.		Overall	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Subject	100.0	0.0	100.0	0.0	88.8	11.2	90.9	9.1	94.9	5.1
Speaker	90.0	10.0	100.0	0.0	66.6	33.4	100.0	0.0	89.2	10.8
Learn something	70.0	30.0	50.0	50.0	66.6	33.4	72.7	27.3	64.8	35.2
Agree ?	100.0	0.0	100.0	0.0	88.8	11.2	100.0	0.0	97.2	2.8

	Ha Monyake		Masemouse		Ha Sempe		Nkheth.		Overall	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Subject	90.0	10.0	80.0	20.0	100.0	0.0	100.0	0.0	92.5	7.5
Speaker	90.0	10.0	80.0	20.0	100.0	0.0	100.0	0.0	92.5	7.5
Learn something	90.0	10.0	0.0	100.0	100.0	0.0	50.0	50.0	60.0	40.0
Agree ?	90.0	10.0	100.0	0.0	100.0	0.0	50.0	50.0	85.0	15.0

Informants were asked whether they could recall the main subject-matter of the last Health Education pitso they had attended, whether they could identify the principal speakers,

whether they felt they had learned something new at the meeting, and whether they agreed with what they had been told. The results obtained are summarized in the table.

As the table shows, rates of recall were generally high, as was the extent to which informants expressed agreement with what they had been told. The extent to which people felt they had learned new things was slightly lower. This latter point may indicate the extent to which people encounter similar messages on a frequent basis, not only at pitsos but via other media, such as radio, print, or more personal contacts with extension workers. At the same time, this may also indicate a need to vary messages, both in content and, perhaps more importantly, in presentation, so as to maintain interest. Over-familiarity on the part of the target audience may lead to a lessening of impact over time.

The extent to which informants claimed to concur with what they heard at pitsos is not a reliable indicator of the degree to which they may subsequently act in accordance with the advice they are given. Indeed, there is considerable evidence to the contrary. This point illustrates the limitations of the pitso as an educational forum.

The pitso, in its "modern" form, is essentially a gathering in which information is transmitted from the authorities (chiefs, government workers, etc.) to the people. Though discussions often ensue, the role of the bulk of the participants is essentially a passive one. Furthermore, where pitsos are project-related they are usually associated with the prospect of potential benefit to the community, either in terms of infrastructural development or the improvement of services, and thus direct rejection of extension workers' statements rarely occurs. Expressed levels of concurrence may thus be subject to strategic bias in that suspended disbelief is the optimum strategy if potential gains are to be realised. If a project is offered to a community it is rarely rejected, though the apparent enthusiasm shown at the initial stages of contact may not subsequently manifest itself in active involvement.

The pitso nevertheless remains an important institution. Such meetings are the most effective means of informing the community in general of the presence of project workers and of outlining broad objectives. Subsequent follow-up activities are easier to undertake once the legitimacy of a project's presence has been established and acknowledged at a community pitso. Attendance at pitsos is sufficiently high in general to ensure a reasonable initial impact, provided that sound arrangements are made in advance and presentations are well-planned and executed. As educational fora their uses may be limited, but they remain the most effective and legitimate means of opening channels of communication with the community and it is thus recommended that they be used primarily for this purpose. They should not be

viewed as primarily of educational value, but as gatherings at which basic views can be communicated with a view to subsequent follow-up.

The value of the pitso is generally acknowledged. In our sampled population, 54.6% of informants said they thought Health Education pitsos were useful, while only one respondent was prepared to say that they were not. Most of those who had not attended a pitso concerned with health issues were unable to comment.

8. Written materials

Lesotho has perhaps the highest rate of literacy in Africa, with official figures claiming a rate in excess of 60%. Even on the basis of the more stringent reckoning of basic literacy used here (four years of elementary schooling, or more), our sample suggests an adult literacy rate in the rural areas in excess of 40%. Thus, many rural households are likely to contain at least one literate member, and most others are likely to have ready access to a literate neighbour or friend who may give assistance to those who cannot read. This creates significant scope for the use of written materials for the transmission of educational messages.

In our survey, we were interested in the extent to which the rural population has been exposed to written educational materials. In addition, we were interested in reviewing the extent to which such materials were retained and whether the basic subject matter had been absorbed.

As the table shows, between one-fifth and one-quarter of informants at both pilot and control sites reported receiving written materials, with overall retention rates of slightly more than 40%. Among pilot sites Mpharane, once again, represents an extreme case. With Mpharane discounted, the figures suggest that informants at project sites are more likely to have received materials than those at controls. Written materials have been circulated by project staff at these sites, and this appears to have had a bearing on the figures obtained.

Retention rates appear to be reasonable, although in view of the fact that many handouts, particularly those from the Ministry of Health, are intended as reference materials, higher rates of rentention would clearly be desirable. Of those who had received materials but were unable to produce them at the time of the interview, 22 said they had lost them, four said they had given them away, one said she had burned them, and another said she had left them behind at her previous home. Of those who had received materials, 56.5% said they had told others what the materials

said.

RATES OF RECEIPT AND RETENTION OF WRITTEN MATERIALS (%)

	Liphiring		Mpharane		Likoeneng		Maphut.		Overall	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Received	48.0	52.0	4.0	96.0	39.1	60.9	20.0	80.0	27.8	72.2
Retention rate*	58.3 (28.0)	41.7	50.0 (2.0)	50.0	44.4 (17.1)	55.6	20.0 (4.0)	80.0	43.2 (12.0)	56.8
	Ha Monyake		Masemouse		Ha Sempe		Nkheth.		Overall	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Received	16.0	84.0	12.5	87.5	24.0	76.0	36.0	64.0	22.1	77.9
Retention rate*	50.0 (8.0)	50.0	33.3 (4.2)	66.7	66.6 (15.9)	33.4	11.1 (4.0)	88.9	40.3 (4.5)	59.7

* Retention rate = the % of those who said they had received materials who were able to produce them. Figures in brackets give the percentage of the sampled population as a whole which both received and retained written materials.

Materials obtained covered a wide variety of subjects. Of the 55 households which had received materials, 15 received handouts about latrines (10 at pilot sites, five at controls), eight were about nutrition, seven about diarrhoea, five each about childcare and family planning, four about Oral Rehydration Therapy, three about sexual transmitted disease, two each about spring protection and typhoid. The remaining subjects covered (one each) were immunization, personal hygiene, agriculture, and alcohol abuse.

Interestingly, we found a statistically significant correlation between receipt of written materials and latrine ownership. Had this been the case only in pilot sites this may be accounted for by the routine issuing of maintenance and health education pamphlets to latrine owners by project staff. According to the chi-squared test of significance, however, significant correlations between these two factors were found in both pilot and control sites (at pilot sites prob.= 0.0516, at controls

prob.= 0.0366).

One explanation for this might be that better-educated people might be more likely to obtain written materials and, in addition, be more likely to build latrines. If this were the case, the critical variable would be educational attainment rather than latrine ownership. However, we tested for this possibility and found no significant correlation between educational attainment (on the part of both household heads and informants) and either possession of written materials or latrine ownership.

The tentative conclusion we thus draw is that there is indeed a strong association between the two variables of latrine ownership and receipt of written materials with a health educational content. An explanation for this would be that certain members of the community are more susceptible to health education messages than others, and that these same people are also more likely to build latrines than are others. Written materials thus seem to find their way to people who are already predisposed to their content, or at least to health education inputs in general. Many materials are sought by recipients, rather than being randomly distributed in the community, in that they are most often given away at clinics, classes, and pitsos. Recipients are thus likely to be those who have already shown an interest in educational activities by attending these institutions and gatherings. These figures do not, of course, give any indication of the characteristics of those who are predisposed to health education messages and those who are not.

The primary implication of this finding is that written materials may have only a limited value as primary instruments of proselytisation. Their value is likely to be greater as means of reinforcing and embellishing upon educational messages previously received through other channels. As noted, materials are most commonly distributed at clinics, classes, and pitsos, and thus are generally used for this purpose.

In summary, the use of written materials should be associated with other forms of contact. Where handouts are intended to be distributed on a house-to-house basis, for example, for either promotional or educational purposes, they must be associated with other activities. These could be of many kinds, such as individual discussions between the distributor and receiver, at a subsequent pitso, course, or class which the handout promotes. Alternately, written materials can be distributed during or after events of this kind, to be used as reinforcers of educational messages or as teaching aids during the event itself. Distributing written materials alone is unlikely to have a major educational impact, but incorporated with more active educational contexts they may be of considerable value.

9. Radio Listenership

Radio ownership is widespread in rural Lesotho, with three out of four households in our sample reporting possession of a set (76.6% at pilot sites, 71.6% at controls; 74.1% overall). With recent improvements to reception of Radio Lesotho in rural areas, due to the installation of a micro-wave transmission network, the potential for using the radio as an educational medium has increased considerably.

Radio Lesotho competes for listeners with stations broadcasting from South Africa, particularly with Radio Sesotho, a very popular local language station. We were thus interested in establishing the extent to which Radio Lesotho is listened to in the rural areas, and, in addition, the amount of interest shown in health education programmes.

FREQUENCY OF RADIO LISTENERSHIP

	Radio Lesotho				H.Ed.programmes			
	Often	Sometimes	Never		Often	Sometimes	Never	
Liphiring	7	12	2	(21)	2	10	8	(20)
Mpharane	1	14	3	(18)	0	7	8	(15)
Likoeneng	1	11	6	(18)	1	6	5	(12)
Maphutseng	5	11	3	(19)	3	10	5	(18)
Ha Monyake	2	10	5	(17)	0	9	6	(15)
Masemouse	5	5	4	(14)	1	6	4	(11)
Ha Sempe	6	11	5	(22)	3	11	5	(19)
Nkhetheleng	5	11	4	(20)	1	8	10	(19)

As the table shows, Radio Lesotho is listened to by the majority of the population at some time or another, with 59.4 % of informants listening either regularly or occasionally. Few, however, reported listening to it on a frequent basis (fewer than 16.2% overall). Similarly, a significant number of people reported hearing Health Education programmes at some time or another, but only a small percentage (5.6% overall) claimed to be regular listeners. Overall, Health Education programmes appear to be reaching 39.6% of the population at some time or another, though few on a regular basis.

Given the widespread ownership of radios, and the recent improvements to Radio Lesotho reception, there appears to be considerable scope for widening audiences for health education

programmes. With casual listenership relatively high, well-presented educational programmes may have the potential to develop the regular listenership which is currently lacking. At present, the regular audience for such programmes is disappointingly small and much needs to be done to fully realise the potential of this medium.

10.Class attendance

Rural clinics, and nutrition centres, are important focal points for educational activities, with regular ante and post-natal, and nutrition, classes being held at most of these centres. These events provide regular contacts between health educators (clinic staffs, government nutritionists, etc.) and the rural population in a relatively intimate setting, allowing for the development of personal relationships between educators and audience which other forums (pitsos in particular) do not so readily encourage.

Clinic-centred classes are almost exclusively aimed at women. They tend to attract a reasonably good attendance because of the way in which they are tied to health-care services, particularly those which are associated with the growth-monitoring and supplementary feeding programmes for under-five children.

Reported attendance at classes was high among informants at both pilot and control sites. At pilot sites, reported attendance was 58.9% overall (Liphiring, 64.0%; Mpharane, 40.0%; Likoeneng, 60.9%; Maphutsenmg, 70.8%). At control sites, the figure was 47.9% (Ha Monyake, 64.0%; Masemouse, 50.0%; Ha Sempe, 36.0%; Nkhetheleng, 41.7%).

The results obtained from this survey give no indication of the value or quality of the education received at these classes. These questions are of obvious interest, but somewhat out of the scope of this evaluation exercise.

11.Home visits

The development of the Village Health Worker programme, in addition to the posting of health and extension workers to rural areas, should mean that increasing numbers of rural people will experience home visits from health educators. Such visits should be of considerable value to educational programmes due to the personal nature of the contact and the opportunity created to discuss issues in greater depth.

Informants were asked whether they are visited at home by health educators, how often they come, what they discuss, and whether they would appreciate additional advice.

Overall there was little variation between pilot and control

sites, with 18.0% of informants across all sites reporting home visits. The range from site to site was wide, however, varying from no reportings at Ha Sempe and very few at Nkhetheleng and Likoeneng, to high levels of reporting at Liphiring and Ha Monyake.

HOME VISITS BY HEALTH EDUCATORS

	YES		NO		TOTAL	
	No.	%.	No.	%.	No.	%.
Liphiring	8	32.0	17	68.0	25	100.0
Mpharane	5	20.0	20	80.0	25	100.0
Likoeneng	2	8.7	21	91.3	23	100.0
Maphutseng	6	25.0	18	75.0	24	100.0
Overall	21	21.4	76	78.6	97	100.0
Ha Monyake	12	48.0	13	52.0	25	100.0
Masemouse	5	20.8	19	79.2	24	100.0
Ha Sempe	0	0.0	25	100.0	25	100.0
Nkhetheleng	1	4.2	23	95.8	24	100.0
Overall	18	18.3	80	81.7	98	100.0
All sites	39	20.0	156	80.0	195	100.0

Visits at project sites were predominantly made by project staff, with 55.0% of informants who reported home visits saying that the extension workers visiting them were either Health Assistants or RSP staff. Village Health Workers and "government workers" were identified by 40.0% of informants (20.0% each). One informant was visited by the clinic nurse.

At control sites, almost all the visits reported were made by Village Health Workers (15, or 88.2%). One informant was visited by a nurse, and the other by RSP staff (probably during the baseline survey exercise). At Ha Sempe and Nkhetheleng there are no VHWs, which explains the virtual absence of home visits at these sites.

Home visits occur on an infrequent basis. Informants were asked how frequently they received visits. Overall, three said they were visited weekly, five said monthly, two said annually.

The majority reported that they were visited "infrequently" (less than once a year): this accounted for 21 informants, or 67.7% of those who responded to this question.

Informants were also asked when they were last visited. There was little variation between project and control sites, as the table shows.

HOME VISITS, TIME OF LAST VISIT

	Project sites		Control sites	
	No.	%.	No.	%.
This month	3	16.7	2	13.3
Within three months	5	27.8	4	26.7
This year	4	22.2	4	26.7
Last year	6	33.3	5	33.3
Total	18	100.0	15	100.0

Given the limited number of trained health workers in the country, a home visiting rate of around 20.0% is encouraging, even though the frequency of visits is generally low. It is generally felt, however, there is still great potential for increasing the rate of activity of VHWs, who are intended as primary agents of health education at the household level. A fully active VHW programme, on a national basis, could dramatically increase the frequency and coverage of home visits for educational purposes.

That there is no evident increase in the rate of visitation at project sites is somewhat disappointing, given that these sites, in general, have resident health workers. In these sites, the frequency of visits by VHWs is much lower than in controls, and there is clearly scope for a major increase in VHW activity rates. The presence of project staff at these sites should serve to stimulate greater activity. At present, however, it appears to have had the opposite effect on VHW activity. The relationship between project staff and VHWs requires closer examination and steps should be taken to encourage this cadre to become more actively involved in project activities.

This latter point is reinforced by the table below, which summarises the responses given by informants when asked who they thought was responsible in their villages for giving health

education to the people. Although non-response rates were quite high, as was the number of informants who thought nobody was responsible, Village Health Workers scored highly, and more than any other body of health or extension workers. This indicates the degree of recognition which Village Health Workers have as a cadre, and underlines that they may have considerable potential which has yet to be realised.

WHO IS RESPONSIBLE FOR HEALTH EDUCATION ?

	Project sites		Control sites		Overall	
	No.	%.	No.	%	No.	%
Nobody	19	19.6	25	25.5	44	22.6
Clinic staff	3	3.1	6	6.1	9	4.6
Health workers	6	6.2	3	3.1	9	4.6
VHWs	31	32.0	25	25.5	56	28.7
RSP staff	1	1.0	0	0.0	1	0.5
Nutritionist	2	2.1	0	0.0	2	1.0
Several*	8	8.3	8	8.2	16	8.2
No response	27	27.8	31	31.6	58	29.7
Total	97	100.0	98	100.0	195	100.0

*Several = combination of the above.

12.General satisfaction

We were interested in discovering the general attitude of rural people towards health education, and who they thought was responsible, in their villages, for undertaking this work. We thus asked informants a number of questions relating to these issues. These were: whether or not they felt people in their village were interested in health education; whether or not they were generally satisfied with the amount of health education they receive and, if not, what additional help they would like; whether or not they felt that health educators ask them to do the impossible; and who they identified as the person responsible for health education activities in their village.

LEVELS OF INTEREST AND SATISFACTION

		Project sites No.	Project sites %	Control sites No.	Control sites %
Are people in your village interested in Health Education ?	YES	58	59.8	44	44.9
	NO	12	12.4	18	18.4
	MISSING	27	27.8	36	36.7
	TOTAL	97	100.0	98	100.0
Are you generally satisfied with the amount of Health Education you get ?	YES	49	50.5	41	41.8
	NO	6	6.2	8	8.2
	MISSING	42	43.3	49	50.0
	TOTAL	97	100.0	98	100.0
Do you need extra help with Health Education ?	YES	24	24.7	18	18.4
	MISSING	73	75.3	80	81.6
	TOTAL	97	100.0	98	100.0
Do Health Educators ask the impossible ?	YES	4	4.1	5	5.1
	NO	93	95.9	93	94.9
	TOTAL	97	100.0	98	100.0

The results obtained from these questions provide an interesting insight into attitudes towards Health Education

activities at a general level. Nearly 60.0% of informants at project sites said that people in their village are interested in Health Education, compared with slightly fewer than 45.0% at control sites. Similarly, informants at project sites expressed somewhat higher levels of satisfaction than those at control sites with the amount of Health Education they receive (50.5% satisfied at project sites, 41.8% satisfied at controls).

These figures suggest that the presence of RSP staff at project sites may have served to raise interest in health issues to a significant, though not dramatic, degree. Equally interesting, however, is the high rate of non-response to these questions.

Negative responses to all of these questions were low, but non-responses were high. Caution should thus be exercised in the interpretation of these results, since the high non-response rate may indicate a general apathy or lack of concern with the issue of Health Education in general. There is clearly a significant amount of interest, as the positive responses indicate; but failure to respond was high and, in the case of the question bearing on satisfaction, equal to the level of positive response.

Less than a quarter of respondents at project sites, and fewer than one in five at control sites, expressed the desire for additional health education, even though other results indicate that levels of health education activity are by no means high enough. The juxtaposition of these results suggests that health education activities may have a definite impact in rural areas, but the demand for them is by no means wholly from the population itself. A significant proportion of the rural population requires and seeks information on health-related issues, but an equally significant proportion appears to show little or no interest.

13.Latrine and Kitchen Inspections

To round off the survey, enumerators were asked to inspect latrines, where these were present, and kitchens, in order to obtain a rough measure of standards of hygiene in the home and surroundings.

A significant number of the households visited had latrines, as the table below shows.

LATRINE OWNERSHIP BY SITE

PILOT SITES

	Liphiring		Mpharane		Likoeneng		Maphutseng		Overall	
	No.	%.	No.	%.	No.	%.	No.	%.	No.	%.
Latrine	15	60.0	4	16.0	15	65.2	8	32.0	42	42.9
No latrine	10	40.0	21	84.0	8	34.8	17	68.0	56	57.1
Total	25	100.0	25	100.0	23	100.0	25	100.0	98	100.0

CONTROL SITES

	Ha Monyake		Masemouse		Ha Sempe		Nkhetheleng		Overall	
	No.	%.	No.	%.	No.	%.	No.	%.	No.	%.
Latrine	6	24.0	6	25.0	16	64.0	14	56.0	42	42.4
No latrine	19	76.0	18	75.0	9	36.0	11	44.0	57	57.6
Total	25	100.0	24	100.0	25	100.0	25	100.0	99	100.0

Overall, latrines were found at 42.9% of households at project sites, and 42.4% of those at control sites. Most of the latrines were unimproved pit latrines. Sixteen of those found at project sites were VIPs.

The general condition of latrines is summarised in the next table. As noted, sixteen (38.1%) of latrines at project sites were VIPs, compared with only two VIPs (4.8%) found at controls. The table also indicates that latrines at project sites were generally better kept than at controls. Although the number of latrines judged to be in good condition was roughly the same at both project sites and controls, a higher proportion of badly kept latrines was found at controls than at project sites.

CONDITION OF LATRINES, PROJECT & CONTROL SITES

	Project sites		Control sites	
	No.	%	No.	%
No. of latrines:	42	42.9	42	42.9
Type of latrine:				
Unimproved pit	26	61.9	40	95.2
VIP	16	38.1	2	4.8
Condition:				
Good	8	19.0	7	16.7
OK	21	50.0	16	38.1
Bad	10	23.8	19	45.2
Missing:	3	7.1	0	0.0

Somewhat similar results were found in respect of the condition of kitchens, as the table below shows.

CONDITION OF KITCHENS, PROJECT & CONTROL SITES

Condition	Project sites		Control sites	
	No.	%	No.	%
Very clean	19	19.4	10	10.2
Clean	29	29.6	38	38.8
Average	33	33.7	25	25.5
Dirty	10	10.2	19	19.4
Very dirty	5	5.1	4	4.1
Missing:	2	2.0	2	2.0
Total	98	100.0	98	100.0

The difference between the condition of kitchens between project and control sites is less striking than in the case of

latrines, but the figures indicate that, overall, kitchens at project sites are generally better kept. In respect of kitchens judged to be very clean, the relative percentages were 19.4 and 10.2 respectively. At project sites, 82.7% of kitchens were either judged to be in average condition or better, compared with 74.5% at controls. Conversely, 17.3% of those at project sites were judged either dirty or very dirty, compared with 25.5% at controls.

Summary and conclusions

The Household Health and Health Education Delivery survey yielded interesting results, and may provide useful background for the further development of the RSP health education programme in particular. Evidence from the survey indicates that the educational work undertaken by the project has already made some inroads in the rural areas, and that general levels of awareness of RSP activities and the messages which staff are trying to disseminate are relatively high. There is clearly scope, however, for the further invigorating of this aspect of project work.

The RSP now has a full-time advisor on health education, and two staff members are currently pursuing further studies abroad in order to upgrade their skills as health educators. During 1987 and beyond we may confidently expect a considerable increase in both the scale and content of educational work. Findings from this survey round suggest that there is considerable potential for the development of such a programme and that a sizeable proportion of the rural population is likely to be receptive to work of this kind.

In the long term, as latrine building skills become widespread, the health education component will become the dominant preoccupation of staff working in the National Rural Sanitation Programme. The importance of this aspect of project work can thus not be overestimated. The ultimate success of the project depends upon significant levels of behavioural change among the rural population in all aspects of daily life which bear upon improved sanitary conditions, at a personal, domestic, and community level.

The survey exercise reported here produced a large body of data. The most important findings may be summarised as follows:-

- The majority of rural households in Lesotho are dominated by women as a consequence of the long periods of absence from home of economically active men. As the rearers of children, and their first (and probably most important) teachers of basic behavioural standards, women are always an important target for health education work, particularly in respect of programmes concerned with issues of personal and

domestic hygiene. At the same time, however, men should not be overlooked. They retain their traditional authority as the head of the household, and to a very large extent still have the ultimate say in the way the family is managed and how domestic resources are allocated. Their support is particularly important in developing the latrine building programme. Thus, although women are likely to be more influential in instilling good behavioural patterns into members of the household, and should be targetted accordingly, obtaining the support of men is still critical to project success;

- The existing exposure of the rural population to health education messages is already relatively high. Many people have encountered such messages through one medium or another, though exposure generally appears to be fragmented and unsystematic. The continuing development of a well-ordered, integrated health education package will be of considerable benefit to the project and should serve to build upon the signs of progress which are already apparent in areas currently served by the project;

- The characteristics and potential impact of the various forums and media for the dissemination of health education messages (community meetings, written materials, classes, radio broadcasts, home visits, etc.) are referred to in this report and may provide guidance in the formulation of appropriate strategies to make the best use of the many educational channels available, and integrate them into a well-balanced package;

- Although community support at a general level is vital to the success of the project, the central target is the rural household. This is the unit which essentially must make the decision to install an improved latrine, and within the context of which important changes in behaviour are being sought. Home visitation is thus very important to win the confidence of the rural population and to develop good lines of communication between extension workers and target groups. Associated with this point is the as yet undeveloped potential of the Village Health Worker programme. The permanent presence of VHWs in the midst of the target population make them ideal extension agents for the project and steps need to be taken to integrate them on a more systematic basis into educational and promotional work. Evidence from the survey indicates that VHWs may be less active in project sites than elsewhere and rapid steps need to be taken to reverse this trend;

- In respect of the various media and gatherings through which health messages can be disseminated, the following characteristics were noted.

* Pitsos appear to be an extremely useful forum for communicating to the rural population the presence of project personnel and the basic form and objectives of RSP activities. As educational forums, however, they may be of less value due to the passive nature of most of these meetings and the consequent loss of interaction and intimacy of communication. They are however essential in order to establish the credentials of the project, legitimise the presence in the community of project staff, and win initial interest and support for project objectives;

* Written materials can be used to good effect to reinforce and disseminate health education messages. This is particularly so given the relatively high rate of literacy in rural Lesotho. Materials, however, should be distributed in the context of associated educational activities so that their use becomes dynamic rather than static. Materials can be used as learning aids at pitsos or classes, and as reinforcing aids, and as focal points for discussion during home visits. They should be designed and used in such a way that the recipients will be encouraged to retain them as a source of reference, and of sufficient interest that those who receive them will communicate their contents to others;

* Radio messages are also good reinforcers of education messages. The immediate problem is to increase the regular listenership to Radio Lesotho and to package radio messages in such a way that they will attract a regular audience. Like written materials, radio spots are unlikely to be effective in isolation, but should be integrated into more active and personal forms of educational contact;

* Classes are frequently held in the rural areas and offer a good medium-sized forum for the interactive exchange of views and dissemination of information. This is particularly true in respect of women, who are the predominant attenders of classes, particularly at rural clinics. There is scope for including health education messages relating to improved sanitation into the contents of such classes on a more systematic basis. Good liaison between project staff and other extension agents, particularly clinic staffs, nutritionists, and rural development assistants, is a prerequisite for developments in this area.

- In respect of knowledge and attitudes towards sickness and health, our findings indicate that levels of apparent

ignorance in respect of sanitation-related diseases are still too high, although there are signs that the presence of the project has led to improvements in some areas. Those who do give accounts of these kinds of diseases generally do so within the context of germ-related theories, and there appears to be no strongly rooted cultural obstacles to the further dissemination of such accounts;

- Related to the above point, there also appears to be no major cultural obstacle to the further dissemination of the idea that sanitation-related diseases can be combatted and avoided. Greater confidence in the value of latrines, and associated behaviours, as viable interventions in the prevention of sanitation-related disease is clearly necessary, however, if the critical threshold is to be crossed to improved behavioural practices;

- In general, there appears to be a need to increase in the rural population an appreciation of the value and importance of health education activities. Although a significant, and encouraging, proportion of the rural population showed an active interest in such activities and appeared to appreciate their importance, an equally significant proportion appeared to be generally apathetic. A greater appreciation of the need for health education is likely to be associated with a greater receptivity to such campaigns and messages. Part of the health education programme should thus work at a general level to develop a heightened awareness of the need for more knowledge;

- In respect of family health, and the incidence of diarrhoeal disease in particular, reportings were broadly in conformity with expected levels at the time of year the survey was conducted. We noted, however, and interesting difference in levels of reporting between households with latrines and those without. Although this difference was notr significant in a statistical sense, it is sufficiently notable to encourage giving serious consideration to the implementation of a systematic health impact evaluation study;

- Standards of domestic hygiene were generally quite good, though by no means high enough to warrant confidence that major changes are taking place. There is scope for more work to bring about improvements in overall standards of personal and domestic hygiene.

Overall, the survey exercise produced interesting results, of a kind which give grounds for a fair degree of optimism that there is scope for the development of an effective health education component as the RSP expands and develops. Educational work is the most difficult aspect of the programme as a whole, and the

area in which the greatest long-term effort will be required. Inducing behavioural and attitudinal change is a lengthy process and it is unrealistic to expect dramatic results overnight. From this perspective the progress already made is very encouraging, but this should not be interpreted as any justification for a let up in these activities. The considerable progress made in the technical aspects of project implementation (reported elsewhere) should give scope, as the programme develops further, for the devotion of more resources, time, and effort into the education process.

EVALUATION SURVEY REPORT #3
VIP LATRINES AND OWNERS

1. Introduction

The RSP strategy depends upon the voluntary cooperation of rural householders in building, paying for, and using VIP latrines. Without this cooperation, the project cannot succeed, in the absence of any legislative or other means to ensure that RSP objectives are achieved.

Given that this is so, it is important for the project to be aware of the extent to which this cooperation is being obtained, and to discover what section(s) of the rural population is participating in project activities. In addition, it is important to obtain information about construction and maintenance standards of latrines, materials preferences, costs, use patterns, and other information which will indicate the extent to which project objectives are being met.

To this end, a survey of a sample of VIP latrine owners, to be conducted annually, has been included in the Plan of Operations for Monitoring and Evaluation. The results of the first major test of this survey form, undertaken during August at the first four project sites in Mohales Hoek district, are reviewed here.

2. The Survey Form

The form consists of an interview and inspection schedule, divided into a number of sections. An earlier version of the form was pre-tested at Liphiring and Mpharane during 1985.

The first section collects basic data on the household and its members and a number of socio-economic indicators. Next, informants are asked about the recent health status of household members, with particular emphasis on diarrhoeal disease, and are also questioned on their knowledge of and attitudes towards disease. This section is the same as that contained in the Household Health and Health Education Delivery Survey.

Attention is then devoted to the household VIP latrine. The VIP latrine at each of the selected households is inspected, to assess standards of both construction and maintenance. Information is also collected on the building of the latrine and the costs involved to the owner. Relations with local builders are also examined, as are family use patterns, levels of satisfaction, and attitudes towards latrines in general and VIP latrines in particular.

The survey form is intended to be compact and easy to use, but at the same time it aims to collect a comprehensive body of data

on the current situation of VIP latrines and their owners.

3. The Sample

Interviews were conducted at a total of 86 households, distributed among the first four pilot sites, as follows:-

DISTRIBUTION OF HOUSEHOLDS

Site	No. of households
Liphiring	24
Mpharane	25
Likoeneng	20
Maphutseng	17
Total	86

Households were selected randomly from those which had built a VIP latrine under the auspices of the project. At the time the interviews were conducted, the selected households represented 20.0% of the approximately 430 which had built VIP latrines during the life of the project up to that point.

VIP owners who had been visited during the health survey exercise were not visited on this occasion. During the health survey, 16 households among our random sample at project sites had been VIP owners. Thus, during the evaluation exercise as a whole, a total of 102 VIP latrine-owning households were visited, equivalent to 24.0% of latrines built up to that point.

Latrines were inspected in a number of different villages at each project site in order to obtain a good cross-section of available latrines and households. Surveys were only conducted in the first four project sites. At the time the survey was conducted, Phamong (site 5) had only recently begun a building programme and there were insufficient completions to obtain valid data. RSP operations had not yet begun at Ha Nohana (site 6). These sites will feature prominently in the next evaluation round.

4. Household composition

The standard information on the household, collected in all RSP survey exercises, was obtained from respondents in this sample. This information was of particular interest in the VIP sample as we wished to identify what characteristics, if any, might distinguish a household responding positively to project activities from others which have not.

The de jure population found in the 86 households surveyed was 526 persons. Household size ranged from one to 15 persons, with a de jure mean of 6.1 persons per household. With migrants excluded, the de facto population was 439 persons, with a mean of 5.1 persons per household.

In the general sample selected for the health survey, mean de jure household size was 5.6 persons, with a de facto mean of 4.95. Thus, VIP latrine owning households appear to have marginally more members than the population as a whole. In the first round of the baseline survey, conducted in 1984, we found a significant correlation between household size and latrine ownership, with larger households being more likely to own a latrine (Baseline 1: p.54). The difference this time was more marginal, indicating that the project is reaching smaller households, though the larger ones still have a slight predominance.

Only two households reported having no full-time wage earner among its members. Fifty-three households (61.6%) reported having one wage earner, 19 (22.1%) had two, three (3.5%) had three, while one household reported six full-time earners among its members. Overall, our sample contained a mean of 1.23 wage earners per household.

VIP owning households contained considerably more full-time wage earners than the population in general. The first two baseline survey rounds were conducted at project sites 1-4 (the same sites surveyed here) and their four control sites (also included in the health survey). The results from these surveys showed that, overall, 21.6% of rural households are likely to have no full-time wage-earners (Baseline 1: p.11; Baseline 2: p.15). In this VIP survey, only 2.3% of households were in this position.

Seventy-three households (84.9%) were headed by men, with 13 (15.1%) being headed by women. However, 43 heads were reported as absent from home, making women the de facto heads of 65.1% of VIP-owning households. All but 10 of our informants (76, or 88.4%) were women. In the health survey, slightly fewer households (80.6%) were male-headed. The percentage of de facto female-headed households was roughly the same, at 64.1%.

The occupational and educational status of household heads and informants is summarised in the following tables.

HOUSEHOLD HEADS AND INFORMANTS BY OCCUPATION

	HEADS		INFORMANTS	
	No.	%.	No.	%.
Migrant	41	47.7	3	3.5
Housewife	11	12.8	61	70.9
Farmer	6	7.0	1	1.2
Trader	5	5.8	5	5.8
Govt worker	3	3.5	0	0.0
Craftsman	1	1.2	0	0.0
Teacher	0	0.0	1	1.2
Labourer	4	4.7	1	1.2
Domestic	0	0.0	1	1.2
Retired	1	1.2	1	1.2
Unemployed	3	3.5	2	2.3
Other	9	10.5	8	9.3
Missing	2	2.3	2	2.3
Total	86	100.0	86	100.0

As the table shows, the dominant occupational category for household heads among VIP latrine owners is migrant worker, accounting for nearly half (47.7%) of all heads in our sample. Eleven out of 13 female heads are shown as housewives. Unemployed household heads represent only 3.5% of heads, and only one head is listed as retired. The overwhelming majority of household heads among VIP latrine-owning households are engaged in income-generating occupations.

Informants are predominantly listed as housewives, reflecting the dominance of women among them.

Comparison of the occupational status of heads in this sample with that of household heads in general (reflected in the data collected in the health survey exercise) reveals some interesting characteristics about VIP-owning households. As the table shows, migrant workers are over-represented among VIP owners, while the unemployed are under-represented to a high degree. Labourers, who are generally very poorly paid, are also under-represented among VIP owners. There are also twice as many traders among VIP

owners than among the population as a whole.

These data serve to confirm that, at present, it is the most economically active segment of the rural population which is engaging in VIP latrine construction. Given the significant capital outlay required to build a VIP latrine (in the absence of widely available credit facilities), this finding is not particularly surprising. It does, however, have implications for our projections for future latrine coverage in rural Lesotho.

HOUSEHOLD HEADS BY OCCUPATION, VIP OWNERS & GENERAL POPULATION

	VIP OWNERS		GENERAL	
	No.	%.	No.	%.
Migrant	41	47.7	65	33.8
Housewife	11	12.8	30	15.7
Farmer	6	7.0	16	8.4
Trader	5	5.8	4	2.1
Govt worker	3	3.5	3	1.6
Craftsman	1	1.2	0	0.0
Teacher	0	0.0	2	1.1
Labourer	4	4.7	25	13.0
Domestic	0	0.0	0	0.0
Retired	1	1.2	4	2.1
Unemployed	3	3.5	36	18.7
Other	9	10.5	7	3.6
Missing	2	2.3	0	0.0
Total	86	100.0	192	100.0

The educational status of heads and informants is shown in the table. Comparison with the health survey findings indicates that both heads and informants in VIP owning households are slightly better educated than the rural population in general.

Among VIP owners, 17.4% of household heads and 3.5% of informants had no formal schooling, compared with 30.5% of heads and 13.2% of informants in the general health survey. Similarly, more VIP owning heads and informants (16.3% and 27.9%) had progressed beyond elementary schooling than those in the general population (9.7% and 19.5%). As in the general survey, informants (i.e. women) proved to be generally better educated than men.

HOUSEHOLD HEADS AND INFORMANTS BY EDUCATION

	HEADS		INFORMANTS	
	No.	%.	No.	%.
None	15	17.4	3	3.5
Std. 1-2	18	20.9	12	14.0
Std. 3-4	12	14.0	14	16.3
Std. 5-7	22	25.6	29	33.7
Form 1-3	10	11.6	15	17.4
Form 4-5	3	3.5	6	7.0
Tech.training	0	0.0	2	2.3
University	1	1.2	1	1.2
Missing	5	5.8	4	4.7
Total	86	100.0	86	100.0

The data collected on occupational and educational status indicates that VIP owning households, so far, appear to be both economically active and better educated than the population as a whole. Higher levels of economic activity clearly indicate that the households are more likely to be able to afford a latrine. We are reluctant, however, to conclude, in addition, that latrine ownership is directly linked to educational attainment as this latter variable may bear more significantly on earning capacity than on latrine ownership as such. Indeed, in both published baseline survey reports we found no significant relationship between educational attainment and latrine ownership.

5.Socio-economic profile

A number of socio-economic indicators were also included in the survey form. Information was sought on whether or not the household had a zinc-roofed building, a fenced plot, a plough, cattle, fields, and a tractor or motor car. The results obtained are outlined below.

ECONOMIC INDICATORS

	YES		NO		TOTAL	
	No.	%.	No.	%.	No.	%.
Zinc-roofed house	83	96.5	3	3.5	86	100.0
Fence	52	60.5	34	39.5	86	100.0
Plough	39	45.3	47	54.7	86	100.0
Tractor	4	4.7	82	95.3	86	100.0
Car	10	11.6	76	88.4	86	100.0

	No.	%.		No.	%.
Cattle: 0	36	41.9	Fields: 0	29	33.7
1-5	32	37.2	1	25	29.1
6-10	16	18.6	2	19	22.1
11+	2	2.3	3	12	14.0
			4+	1	1.2
Total	86	100.0	Total	86	100.0

The most notable finding is the very high incidence of zinc-roofed buildings occupied by latrine owning households. All but three of the homes surveyed had this symbol of the "modern" rural household.

The desire for a new building (i.e. one with a zinc roof) was consistently noted in both published baseline survey reports, ranking as the second most-cited household need in both the first and second surveys.

We speculated in those reports that latrines are a middle-ranking household need, with a "modern" house being the most desired domestic facility. This theory appears to be born out by these findings. While in the cash-rich cycle, households seek to establish their basic facilities, to as high a standard as their means allow. Building a secure fence around the plot also appears to be part of this process. The addition of a latrine (another modern facility) appears to be an increasingly important part of this process, at least at project sites.

In this respect, latrines appear to be important as signifiers of social status, as well as being convenient and healthy. This motivation for acquiring a latrine is rarely directly reported by informants, but our findings suggest a coincidence between these household features and their relationship to modernity and social prestige.

The other indicators serve to confirm the relatively high economic profile of VIP latrine owners as a group. Car ownership, in particular, is very high for rural Lesotho.

6. Health profile

As in the health survey, informants were asked to report whether there had been any cases of diarrhoea among household members during the seven days prior to the interview. They were also asked to report on any other illnesses suffered during the same reporting period.

Cases of diarrhoea were reported in five households, 6.1% of those surveyed. As noted in the health survey, reportings of diarrhoea in latrine owning households were slightly lower than among the rest of the population (7.7% among latrine owners, 11.9% among the rest). The figures obtained here conform with that trend, with reportings among VIP owners in particular being slightly lower still. Again, we do not take this as evidence of health impact, but the finding is interesting nevertheless and suggests that further investigation into health impact may be worthwhile.

Other illnesses were reported in 31 households (38.3%). As in the health survey, most of the illnesses reported were minor and self-limiting.[/] The reporting rate was much the same as that found in households at control sites in the health survey (39.8%), though slightly higher than was reported by the general population at project sites (28.6%).

7. Knowledge and attitudes towards disease

The levels of knowledge displayed by VIP owners in respect of sanitation-related diseases have already been discussed in some detail in the report of the household health and health education delivery survey. As noted there, VIP latrine owners displayed significantly lower levels of ignorance of these diseases, particularly in respect of typhoid and diarrhoea.

This is an encouraging finding, but, as noted, the difference in knowledge levels is not yet dramatic enough to justify any relaxation in health education activities. Nonetheless, project health education activities appear to be having an impact and we can expect this impact to increase as more latrines are built.

8. Latrines: Costs, materials, and construction.

As noted, households were selected on the basis that they had a VIP latrine, which had been built under project auspices. Of the latrines surveyed, 76 (88.4%) were single-pit VIPs and 10 (11.6%) were double-pit models.

An important part of the survey form was the obtaining of information on the latrine itself, its costs, materials used, and the relationship between owners and local builders.

In the early stages of the project it was hoped that households would be able to contribute a significant amount of their own labour to latrine construction. However, our findings show that the work involved is predominantly undertaken by local latrine builders. Indications from the field suggest that part of the reason for this may be that many builders are reluctant to take on contracts unless they are permitted to undertake all of the work, on the grounds that the financial rewards are not high enough otherwise. On the positive side, the monopolizing of most of the work by well-trained local builders appears to have significantly contributed to high standards of construction.

As the table shows, the majority of pits were dug by LLBs (68.0%), 16.0% were dug by household members, while 3.5% were dug by relatives. Slab laying was done predominantly by LLBs (92.0%), as was superstructure construction (87.0%). As the table shows, most latrines were built by LLBs from start to finish.

Latrine owners were asked whether they had experienced any problems in their relationships with local builders. Nine informants (13.0%) reported problems. Seven informants described the problems they had encountered, as follows: three complained of faulty construction, while the remaining four complained that the builder was too slow, the materials ran out before the latrine was finished, the builder ran away before finishing the job, and the builder arrived for work drunk.

Generally, informants were satisfied with the work the builders had done and our own inspections confirm that building standards in respect of project latrines are very high.

Most of the latrines surveyed have zinc superstructures (60.0%), while 18% were built with concrete block structures. Bricks were also used for some latrines, while stone proved to be the least popular material.

Latrine doors are made of wood in 51.0% of cases, with 47% being made of zinc. Latrine roofs were all made of zinc sheeting.

Pitch-fibre vent pipes were used in 91% of cases. A few others

(6%) used PVC pipes, while one was made with concrete blocks and another with bricks.

Stone (42%) and concrete blocks (40%) were equally popular for constructing the ringbeam or lining, while one ringbeam was made of concrete. Concrete flooring slabs were used in 86% of latrines, while 6% used wooden flooring.

Overall, the most popular latrine at present is the zinc model, despite encouragement on the part of the project to build with locally-available materials such as stone, mud blocks, and burlap. It would appear that VIP owners are more interested in smart latrines than cheap ones.

The mean cost of all the latrines surveyed was M.158.00, with a range from M.29.00 to M.480. However, this figure is somewhat under-representative in that a number of respondents in our sample were Village Health Workers, most of whom received latrine component kits (valued at M.30-45 each) free of charge from the project. We thus recalculated the mean while discounting all latrines which cost less than M.100. We were thus left with a total of 60 latrines costing a total of M.100 or more per unit. The mean cost from this sample was M.188.25.

Many people made savings on their latrines, either by using materials which were already available at home (e.g. old zinc sheeting, timber, etc.), or by undertaking some of the work involved themselves. The mean cost of VIP latrines as reflected in this survey is a reasonable one, and is roughly equivalent to current estimates of the mean monthly income of a typical rural household.

Informants were asked whether they thought the cost of their latrine was a reasonable one. Overall, 70 informants (81.4%) thought that it was, while 16 (18.6%) thought it was not. Interestingly, nine out of these 16 were from Mpharane. Furthermore, the mean cost of the latrines owned by these nine people was M.146.10, substantially below the mean cost of latrines overall.

9.Latrines: location

Enumerators were asked to estimate the distance a latrine was located from both the owners and closest neighbour's house, and to determine whether the latrine was built closer to the owner's or neighbour's home. This was a simple check to indicate whether or not latrine location was likely to cause friction between neighbours and thus inadvertently involve the project in social disputes within the rural communities (in the way, for example, that breakdowns in rural water supplies have led to community frictions).

LOCATION OF LATRINE				
Distance (metres)	From Owner No.	%.	From Neighbour No.	%.
0-5	12	14.1	1	1.2
6-10	29	34.1	16	19.1
11-15	28	32.9	18	21.4
15+	16	18.8	49	58.3
Total	85	100.0	84	100.0

RELATIVE LOCATION		
	No.	%.
Nearer to owner	70	82.4
Nearer to neighbour	15	17.7
Total	85	100.0

Most latrines (82.4%) were closer to the owner's house than the neighbour's. Of those which were nearer the neighbour's, only one was within five metres. Most owners built their latrines between six and 15 metres from the house (57, or 67.0%). Sixteen owners (18.8%) placed their latrine more than 15 metres from the house.

The odour-free characteristic of the VIP latrine means that it can be built much closer to the house than an unimproved pit latrine without causing a nuisance. Many owners could hence bring their latrines closer to the home, thus further increasing their convenience value, without worrying about an odour problem. In educational work this point could be underlined.

The observations of our enumerators indicate that there are unlikely to be problems between neighbours over the siting of VIP latrines, and so far there has been no indication from project sites of such difficulties arising.

10. Latrines: condition

Enumerators were asked to inspect latrines, noting their condition and standards of maintenance. This provides a check against both construction standards and owner-maintenance.

On approaching the latrine, the first check was on whether or not doors were open or closed. Two latrines (2.4%) were found to have no doors at all, while 20 doors (23.8%) were found to be open and 62 (73.8%) closed.

Keeping VIP latrine doors closed is important for two reasons. First, the latrine interior should be kept dark so that if there are any flies inside the pit they will not be aware that the drop hole provides them with an exit. The only light entering the pit should shine down the vent pipe. Flies will then attempt to leave the pit via the pipe and subsequently find themselves trapped by the mesh flyscreen. Second, if the door is open it is possible for a wind-shear effect across the doorway to reverse the airflow through the pit, drawing odours out through the seat instead of the pipe, thus creating an odour problem inside the latrine shelter. In addition, an open latrine door puts additional pressure on its hinges, as well as being able to bang in the wind, and in time is likely to fall off the structure.

Given these factors, the number of latrine doors which were found open is clearly too high. A greater appreciation of the workings of the VIP latrine on the part of owners may lead to greater care in keeping doors closed. These issues should continue to be stressed in educational work.

A related issue is that of the disposition and condition of vent pipes and flyscreens. In order to work effectively, vent pipes should stand vertically (in order for the wind-shear across the top of the pipe to be fully effective, and to prevent wind blowing down the pipe and reversing the air flow), and flyscreens must be securely attached and intact. Overall, pipes and screens were found to be ingood condition. Vent pipes were found to be straight in 96.0% of cases, 96% of flyscreens were in place, and 93% of flyscreens were intact.

The condition of pits and supporting structures was also noted. Most pits (80.0%) were supported by a ringbeam and 17% by a full lining, 2% of pits were unsupported. A few latrines (4.0%) were found to have gaps around the edges of the pit. Very few latrine pits were found to contain water (91% had no water); 9% of pits had some water in them, but these were all less than half-full. Six per cent of latrines were protected from water by a drainage ditch.

Standard RSP seat designs do not incorporate a cover. Covers are not necessary in a VIP latrine provided that the interior of

the shelter is kept dark. However, some VIP owners prefer to add a cover to their latrines, either as a matter of taste, or in conjunction with a seat to offset the coldness of the concrete used in the RSP design. Where covers are used, however, it is important that a gap be left under them so that the airflow through the pit and out of the vent pipe is not impeded.

Covers were found on the seats of 27 latrines (32%). Of these, 21 (77.7) had a gap under the cover to allow air to be drawn in through the seat, while the remaining six did not. Lack of an air gap does not appear to be a major problem but, again, the workings of the VIP latrine could be further stressed so that owners fully understand the necessity for allowing air to enter the latrine pit.

RSP latrines have two different seat designs: a pedestal design and a bench seat design. The former is being gradually phased out, due to production difficulties and also due to the greater difficulty in keeping these seats clean because of the shute through which waste matter passes into the pit. Pedestal seats were inspected by enumerators to check on soiling in the shute. More than two-thirds (72.0%) of latrines inspected had pedestal seats. Of these, 8.3% had soiled shutes.

The interiors of latrines were generally in a clean condition. The tops of seats were inspected and 90.0% were found to be clean. Most floors (80.0%) were also clean.

Flies were found in only 6.0% of latrines, and very few latrines (3.0%) were found to smell. Paper was available in 64.0% of latrines. Compounds were also inspected, as a means of checking the cleanliness of the latrine surroundings. Overall, 68% of compounds were judged to be clean, 30% were in average condition, while only 2.0% were found to be dirty.

Overall, latrine inspections revealed that VIPs are generally in very good condition, and that standards of maintenance and cleanliness are high. However, health and user education work should continue to stress the importance of high standards of cleanliness in an attempt to improve standards even further.

11. Use patterns

Ownership and maintenance of a good latrine is clearly important. Even more important, however, is good use. We were therefore interested in obtaining information about latrine use. Use by children is an issue of particular concern to the project.

Sixty-seven households (79.0%) in our sample had children under 10 years of age among their members. Informants were asked at what age their children would start to use the latrine.

AGE CHILDREN START TO USE LATRINE		
Age	No.	%.
One	1	1.3
Two	2	2.7
Three	7	9.5
Four	10	13.5
Five	15	20.3
Six	7	9.5
Seven	6	8.1
Eight	3	4.1
Nine	2	2.7
Ten & over	21	28.3
Total	74	100.0

(non-response = 12)

As the table shows, nine informants (13.5%) said their children would use the latrine at the ages of one, two or three years. A further 25 (33.8%) said children would use the latrine at four or five years of age. These figures are encouraging, insofar as 47.3% of informants said children would use the latrine at five years of age or less.

However, 18 informants (24.4%) said the age would be between six and 10, and a further 21 (28.3%) said their children would not use the latrine until they were 10 years old or more (with four saying 15 or 16 years).

Informants were also asked about the toilet habits of their babies. First, they were asked where their babies defecate. Second, they were asked if, and where, they dispose of babies' feces.

Only 7.0% of informants reported having potty-trained their babies. Other babies were said to defecate in dongas (28.0%) or on the household rubbish heap (27.0%). A further 19.0% reported that their babies defecate anywhere. Most informants, however, reported that they subsequently disposed of their babies' feces in the latrine (60.0%), while 19.0% said they put them on the rubbish heap, and 13.0% that they leave them where they are.

Informants were asked whether they believed that babies' feces

could pose a threat to health. Responses to this question showed a far higher proportion of informants responding in the affirmative than in our baseline surveys, or the health survey conducted at about the same time. Of the 85 informants who answered this question, 73 (84.9%) said they believed babies' feces could be dangerous, while 12 (14.0%) thought they were not.

This was a significantly higher proportion than the findings for the population as a whole in the baseline surveys. In the first baseline survey, 50.0% of informants thought babies feces were dangerous (Baseline 1: p.44), with 70.1% thinking so in the second round (Baseline 2: p.44), making 60.5% in the population as a whole who held this view.

As a further follow-up, informants were then asked whether they would be willing to teach their children to use the latrine as soon as they were old enough to speak (e.g. at two to three years of age, when they can speak sufficiently to ask for help in going to the toilet). A very large number of informants, 72 or 84.0%, responded that they would be prepared to do so. It is interesting to note, however, the large disparity in the response to this question and the previous accounts of the ages at which children would actually use the latrine. Fear of the child falling into the pit is a major reason why parents are reluctant to encourage early use, and there is also evidence that mothers feel that young children will soil the latrine.

The mean reported age for children's use was 6.98 years, which is significantly older than the project target of 3-4 years. It is evident from our findings that much more campaign work will have to be undertaken in an effort to persuade mothers to train their children in latrine use at an earlier age.

Non-use is also an important issue and informants were asked whether there were any adults who did not use the latrine. Twelve per cent of households reported having an adult member who did not use the latrine. Most of these failed to use the latrine because they were more accustomed to defecating out of doors and could not get used to using a latrine. No household reported more than one non-user, and thus the number of adult non-users as a proportion of the population surveyed was very small.

12. Latrine Coverage

An important question in the survey was whether or not VIP owners had previously owned latrines. This is an important question in relation to the impact of project activities on rural latrine coverage. If it were the case that the majority of VIP owners had previously owned latrines, then clearly the project would have little impact, apart from persuading those who are already converted to upgrade their facilities.

In our sample, however, we found that only 10 households (11.6%) had previously owned latrines, the remaining 88.4% being first-time owners. This is a positive finding as it demonstrates that the majority of RSP-inspired VIP latrines are contributing to an increase in latrine coverage at project sites. This increase was reflected in the percentage coverage found among the randomly sampled population selected for the health survey, which was in some cases double the coverage found in the baseline surveys which preceeded project implementation.

If we can assume that a substantial proportion of those who already owned pit latrines prior to the launching of project activities will ultimately wish to upgrade their facilities to VIPs, we may expect a "second wave" of demand as these old latrines begin to fill up or deteriorate to the extent that they need replacement.

The project is currently experimenting with credit systems in an effort to make latrines affordable to a higher proportion of the rural population at any one time. When such systems become more widespread, we can expect the socio-economic profile of VIP owning households to shift somewhat in favour of the less well off.

Thus, in any project site we may expect a three-tier structure of demand. First, an immediate demand from those who are predisposed to latrine ownership and are in a financial position to pay the full cost almost immediately (these being represented by the majority of those currently being served in Mohales Hoek). Second, the segment of the population which already have latrines but who are likely to want to switch to a VIP when their old latrine is no longer serviceable. Third, clients whose financial position is somewhat tighter but who can participate when credit facilities become available on a wider scale.

Current projections estimate that at any one time approximately 40.0% of the rural population are in a position to afford the full cost of a VIP latrine, at current costs, without the need for credit. With a widespread credit scheme, a further 40.0%, would also be able to obtain a latrine, leaving 10-20% who lack the financial resources to purchase a latrine, even if credit were available (cf. Baker report).

The dominance of the migrant labour system within the rural economy, however, contributes to an additional feature which should not be overlooked in these discussions. Migrant labour careers are relatively short-lived, extending anywhere between perhaps only one year in duration, up to a maximum of maybe 25 years. In other words, a rural man will only spend a part of his economically active life as a relatively cash-rich migrant worker.

In a typical Western economy, or even many African rural economies, an active male may expect his economic position to increase in relative terms throughout his active life, reaching as plateau relatively late in his career and, perhaps, declining somewhat in retirement. The profile for a migrant-dominated economy may be somewhat different, with a plateau being reached much sooner, but decline also setting in at a much earlier stage. Thus, a Mosotho miner is likely to find himself cash-rich early in his active life (perhaps between the ages of 20-40), with relative decline setting in once his career in the mines comes to an end.

The miner-headed households tend to dominate the top 40.0% of rural households in economic terms, but it can be seen that any one household's stay in this category is unlikely to be a permanent one. The economic stratification of rural households is thus characterised by a powerful dynamic which results in a relatively rapid turnover of membership in each category. What may be observed over time is a developmental cycle in the domestic economy, in which any particular household may, in the course of its development, move up into the top category, only to slip back down the ladder when the migrant finally returns home for good.

This is a very important factor in projecting future latrine coverage, since many households which are, at any one time, in a stage of development where they cannot afford a latrine may, in the course of time, move up to a position where they can. Even those households which have passed through the cash-rich phase and are in relative decline may experience a resurgence when their own male offspring become old enough to engage in migrant employment.

In short, the category of rural households which cannot afford a latrine is not a fixed one. A household which cannot afford a latrine today may well be able to afford one tommorrow, and thus potential coverage over time may be higher than a static analysis might project. Of course, there is likely to be a residual segment of the population which may never move from the lower categories, and consideration must be given at some point to what assistance may be given to such groups. In the meantime, however, it is recommended that the introduction of any proposed

subsidy or grant schemes be postponed (perhaps for as long as five to 10 years) while the longer-term effects of the full cost-recovery strategy are worked out.

13. Attitudes, motivation, level of satisfaction.

A number of questions on the form were designed to investigate the attitudes of respondents towards latrines, and their possible motives for obtaining one. In addition, we were also interested in investigating people's general levels of satisfaction with project latrines and whether current owners would have a positive or negative impact on persuading others to build.

Respondents were asked to list up to three reasons why it is good to have a latrine. The objective of this question was to obtain information on their attitudes towards latrines, and some indication as to their motivation in wanting a latrine of their own. The results obtained are shown in table.

As the table shows, the most frequently cited advantage of latrine ownership was convenience. This category covers a wide range of responses, including the closeness of a latrine to the house, protection from the weather, convenience when a family member is sick or housebound, the prestige and convenience of having a latrine when there are visitors, and so on.

WHY IT IS GOOD TO HAVE A LATRINE

Reasons	First No.	First %	Second No.	Second %	Third No.	Third %	Overall No.	Overall %
Clean environment	11	12.8	10	12.8	8	13.3	29	11.2
Convenience	41	47.7	35	44.9	21	35.0	97	37.6
Privacy	14	16.3	6	7.7	8	13.3	28	10.9
Prevents disease	18	20.9	17	21.8	15	25.0	50	19.4
Other	1	1.2	10	12.8	8	13.4	19	7.4
Non-response	1	1.2	8	9.3	26	30.2	35	13.5
Total	86	100.0	86	100.0	86	100.0	258	100.0

The role of latrines in preventing disease appears to be appreciated by a significant number of respondents, and this

advantage was the second-most cited reason overall. Promoters of low-cost sanitation are often cynical about the extent to which beneficiaries really appreciate the health advantages of latrines, and tend to treat informants' statements about health issues with suspicion. However, health benefits have been cited consistently by our informants, from the initial baseline surveys onwards, and should be taken seriously.

The privacy afforded by latrines, and the cleaner environment created by their use were also important reasons given by informants.

Very few respondents were unable to offer answers to this question. Only one respondent was unable or unwilling to give any reason, 98.8% of respondents were able to give at least one reason, while 90.7% were able to give two reasons, and 69.8% were able to give three.

Responses to this question assist both in evaluating the motivating factors behind latrine ownership, and also provide a guide to the kinds of promotional messages which may assist in increasing latrine coverage in rural Lesotho.

We were also interested in examining attitudes towards the VIP latrine in particular, in order to evaluate the perceived advantages of these latrines in relation to ordinary pit latrines. The responses given are summarized in the following table.

ADVANTAGES OF THE VIP LATRINE

Advantages	First No.	First %	Second No.	Second %	Third No.	Third %	Overall No.	Overall %
No flies or smell	81	94.2	48	55.8	8	9.3	137	53.1
Durable	1	1.2	8	9.3	9	10.5	18	7.0
Attractive	0	0.0	3	3.5	9	10.5	12	4.7
Other	0	0.0	5	5.8	10	11.6	15	5.8
Non-response	4	4.6	22	25.6	50	58.1	76	29.4
Total	86	100.0	86	100.0	86	100.0	258	100.0

The elimination of odours and the fly-control characteristics of the VIP are clearly its primary selling points. These features are unique to the VIP among the pit latrine options available in Lesotho, and already feature prominently in RSP promotional materials and activities. The odour-free nature of VIPs alone makes them a very attractive proposition, in comparison with the condition of a great number of unimproved pit latrines found in the villages.

Several respondents also commented on the strength and durability of project VIP latrines, and a number also said they were attractive.

Respondents were also asked to comment on any disadvantages of the VIP latrine which they perceived. Relatively few offered responses to this question. The coldness of the concrete seats used in RSP designs was mentioned by 12 respondents (13.9% of the sample, 4.7% of a possible 258 responses). One respondent complained that a VIP was too expensive, while two commented on the inconvenience of having to relocate single pit VIPs when they are full.

DISADVANTAGES OF THE VIP LATRINE

Disadvantages	First No.	First %.	Second No.	Second %.	Third No.	Third %.	Overall No.	Overall %.
Cold seat	10	11.6	2	2.3	0	0.0	12	4.7
Expensive	1	1.2	0	0.0	0	0.0	1	0.4
Need to relocate	2	2.3	0	0.0	0	0.0	2	0.8
Other	5	5.8	3	3.5	1	1.2	9	3.5
Non-response	68	79.1	81	94.2	85	98.8	234	90.6
Total	86	100.0	86	100.0	86	100.0	258	100.0

Non-response rates in respect of disadvantages were very high, with only 24 comments being received out of a possible 258 (86 respondents x three possible responses each). Respondents found it easy to list reasons why one should have a latrine, and were also quite forthcoming in citing the advantages of the VIP in particular. The number of respondents commenting on disadvantages were very few.

Overall, 78 respondents (90.7%) said they were generally

satisfied with their VIP latrine. Six respondents (7.0%) said they were not (non-responses = 2). An even higher proportion, 83 respondents (96.5%), said they would recommend others to obtain a VIP latrine, while only two (2.3%) said they would not. Thus, although six respondents expressed some dissatisfaction with their own VIP latrines, four of these nevertheless said they would recommend others to obtain one.

These findings are extremely encouraging and indicate that, with one or two minor reservations (cold seats being the primary example) project VIPs are proving very popular among their owners. Standards of construction and maintenance are good, and owners appear to be proud and happy to own a VIP latrine. Hopefully, they will communicate this satisfaction to others, with a resultant build-up of demand.

14. Summary and conclusions

In summary, the main findings of the VIP evaluation exercise are as follows:-

- the Vip latrines surveyed were in generally good condition, well built, and well maintained;

- Owners display a preference for "modern" building materials, primarily zinc sheeting, also concrete blocks. Greater efforts need to be made to promote cheaper materials to help cut costs and broaden coverage;

- Mean cost of VIP latrines was approximately M.188.00. This is reasonable, and very competitive when compared with commercially available alternatives. Further savings could be made, as noted, by using cheaper materials, and also by increased household labour inputs;

- VIP latrine owners tend to be found among the more economically active segment of the rural population. Owners are also slightly better educated than the population as a whole, though there is no direct link between education standards and latrine ownership as such. Most latrine owners have already satisfied other basic household needs, in particular the acquisition of a zinc-roofed house;

- Four out of five VIP owners are first-time buyers of latrines. This indicates that the project is having a significant impact on latrine coverage. It is also reasonable to speculate that existing latrine owners (those who had latrines before RSP activities began) will eventually wish to install VIPs once their old latrines are full or worn out;

- There is an urgent need to further develop the credit

schemes under consideration by the project in order to expand potential coverage. The wider availability of credit may be the key to broad coverage;

- The dynamic nature of the household economy in rural Lesotho indicates that many households, at one time or another, will be able to afford a latrine. Over time a large proportion of households will spend some time in the top 40% category of relatively cash-rich domestic economies. Subsidy and grant options should thus be shelved for the time being while the implications of this dynamism are worked out;

- Latrine use by adults in VIP owning households is almost universal. Use by children, however, is not yet satisfactory. Concerted efforts need to be made to persuade mothers to train their children to use the latrine at an early age. More encouragement should also be given to the use of latrines for the disposal of babies' feces;

- Reportings of diarrhoeal disease appear to be somewhat lower among VIP owning households than among the population as a whole. These results are not conclusive but suggest that it may be worthwhile to undertake a systematic Health Impact Evaluation;

- Vip latrine owners also appear to be more more knowledgeable than the population as a whole about the modes of transmission of diarrhoea and typhoid, two centrally important sanitation-related diseases. At the same time, they displayed no superior knowledge in respect of worms or scabies: diseases which relaste importantly to domestic and personal hygiene. More educational work needs to be done to address these issues;

- The convenience of having a latrine is greatly appreciated and appears to be the dominant motivating factor in persuading a household to build. Health advantages are also significantly appreciated. There is also evidence that VIP latrines have a significant social value as symbols of status and prestige;

- The odour-free and fly-control characteristics of the VIP latrine are its dominant selling points;

- Very few owners wished to find fault with project VIPs. The only problem cited to any significant degree was the coldness of the concrete seats;

- General satisfaction among VIP owners is very high, with few complaints. Almost all VIP owners said they would recommend others to build them.

These findings are generally very encouraging. There is still, however, a considerable amount of further work to be done in order to build on the progress already made. From the technical point of view, the VIP building programme has been very succesful.

Full attention should now be given to widening potential coverage, by building up the credit systems and doing more work to promote cost-cutting materials options. The issue of use by children must also be seriously addressed. Finally, health education work must be further intensified to establish clear links in the minds of rural people of the relationship between good sanitation facilities, higher standards of personal and domestic hygiene, and better health.

LIST OF PARTICIPANTS

NAME	TITLE	AGENCY
M.MOEKEBI	Sanitation	Plenty
T.MAKOA	Const. Maintenance	Plenty
D.CORRIGAN	Const. Maintenance	Plenty
S.RAMOLEFI	Driver	RSP
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M.HLABANA	Health Inspector	MOH
L.NOVEMBER	CCCD Trainer	MOH
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D.MAKHETHA	Sen. Health Educator	MOH
W.DAY	Nurse/VHW Coordinator	Plenty
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R.LESEI	Chief Health Inspector	MOH
B.CHALE	Health Assistant	MOH
D.GOOD	Water Engineer	Plenty
L.MOSOLELI	Administration	Plenty

DRAFT 2 6/11/86

ON-SITE SANITATION COORDINATING COMMITTEE (OSCC)

Terms of Reference

The OSCC shall be a working committee of the National Steering Committee for the IDWSSD (NSC) and will advise the Government of Lesotho through the NSC with respect to on-site sanitation issues. The committee will meet on a regular basis, not less than ten times a year, and will fulfill the following terms of reference:

1. Recommend a comprehensive on-site sanitation policy and objectives for both rural and urban areas of Lesotho, and ensure that all projects and programmes with on-site sanitation components operate waithin the policy guidelines.

2. Provide a forum for dialogue and coordination regarding on-site sanitation activities between project managers, donor representatives and government agency personnel.

3. Ensure that projects and programmes which are focussing primarily on on-site sanitation are or can be expected to achieve project goals and objectives, review and approve implementation plans for these projects, and monitor implementation.

4. Provide advisory support to the NSC and relevant ministries regarding the identification of future inputs that may be required for implementation of the on-site sanitation policy, and assist with the formulation of projects to provide these inputs.

5. Review existing legislation pertaining to on-site sanitation and recommend legislative changes or additions which may be needed in order to ensure the effective implementation of the on-site sanitation policy.

6. Chairmanship of the OSCC will alternate between the planning units of the Ministry of Health and the Ministry of Interior, Chieftainship Affairs, and Rural Development.

7. The OSCC will report to the NSC through members sitting on both committees.

8. The OSCC will be established and begin execution of these Terms of Reference in January, 1987.

PROVISION OF LATRINE CONSTRUCTION CREDIT
THROUGH LESOTHO BANK